This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

No.....................................

BOSTON
MEDICAL LIBRARY
ASSOCIATION,
19 BOYLSTON PLACE.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

GEORGE A. HENDRICKS, M. D.,
EDITOR.

BOSTON MEDICAL
MAY 27 1887
LIBRARY ASS'N.

VOLUME VIII.

ANN ARBOR, MICHIGAN:
JOHN WILLIAM KEATING,
PUBLISHER AND PROPRIETOR.
MDCCCLXXXVI.

CATALOGUED,
E. H. B.
5/27/87.

CONTRIBUTORS.

GEORGE A. HENDRICKS, M. D.,
EDITOR.

J. A. ARMSTRONG, M. D.,	63
WILLIAM L. AXFORD, M. D.,	244
J. A. BACH, M. D.,	243
HENRY B. BAKER, M. D.,	163 167 303
SIMEON BELKNAP, M. D.,	49
J. A. BOBB, M. D.,	54
J. H. BONINE, M. D.,	49
FLEMMING CARROW, M. D.,	485
F. B. FLORENTINE, M. D.,	104 158 252 255 439 442
G. E. FROTHINGHAM, M. D.,	208
GEORGE GUNDLACH,	489 552
PROFESSOR HARDY, M. D.,	51
H. L. HARRINGTON, M. D.,	481
L. F. HATCH,	212 299 300 401
WALTER HAY, M. D.,	296 245
GEORGE A. HENDRICKS, M. D.,	398
A. J. HOSMER, M. D.,	215 258
PAUL C. JENSEN, M. D.,	192
JUNE K. KIMURA,	22 61
CHARLES J. LEWIS, M. D.,	145
DONALD MACLEAN, M. D.,	344 486
JOHN MADDEN, M. D.,	436
WILMOT F. MILLER,	346 492 494
W. P. MUNN,	106 159 161
M. E. PAGELSEN, M. D.,	289
A. B. PALMER, M. D.,	1
PROFESSOR PAJOT, M. D.,	101
PROFESSOR POTAIN, M. D.,	154
J. M. POSTLE, M. D.,	241
H. J. REYNOLDS, M. D.,	545
KARL von RUCK, M. D.,	529
F. P. SATTERWHITE, M. D.,	339
N. SENN, M. D.,	97
T. SHAW, M. D.,	337
T. J. SULLIVAN, M. D.,	301 348 403 437
PROFESSOR TILLAUX, M. D.,	249
WILLIAM VIGNAL, M. D.,	495 433 560

INDEX TO VOLUME VIII.

PAGE

Abdomen, pendulous in women, 457
Absinthine to create an appetite, 235
Acid, carbolic, the treatment of hæmorrhoids by injections of, 36
Acne, treatment of, 458
Actinomycosis, 552
Action of alcoholic liquors in health and disease, 1
Adenitis, pilocarpine in the treatment of, 574
Air-passages, emesis for the removal of foreign bodies in, 63
Air, cold, 411
Albumen in urine of cadavers, 121
Alcohol, incompatibility of chloral hydrate and potassium bromide and, 142
Alcoholic liquors, action of in health and disease, 1
Alcoholism, pilocarpine in, 92
Alcoholism, strychnia in acute, 140
Algin, the pharmaceutical and therapeutical uses of, 48
Alopecia, for syphilitic, 429
Alum in purulent ophthalmia, 46
American women, the child-bearing period of increasing, 120
Amenorrhœa, 135
Amputation at the hip-joint for morbus coxæ, 445
Amputation at the hip-joint, a case of, 339
Amyl nitrite in whooping-cough, 429
Amyl nitrite in cocaine poisoning, 475
Anæsthesia and operations: report of cases, 106
Anæsthesia, local, 139
Anæsthetic, creasote water as a local, 137

PAGE

Anæsthesia, influence of the inhalation of pure gaseous oxide of nitrogen, 255
Ano, fistula in, 258
Anodyne counter-irritation, 188
Antiseptics, Bilroth's views on, 122
Antiseptic surgery, the advantages of the principles of dry dressings in, 180
Antiseptic, hydrofluoric acid a powerful, 237
Antiseptic, sal alembroth, 332
Antipyrine, the use of during pregnancy, 189
Antipyrine, action of upon the temperature and tissue changes in childhood, 378
Antipyrine as a hæmostatic, 332
Antipyrine, the mode of action, 381
Apomorphine, transformation of morphia into, 359
Apomorphine in croup and bronchitis, 92
Apomorphine in obstinate neuroses, 47
Apone, a new preparation of capsicum, 190
Appetite, absinthine to create an, 235
Arekane, 284
Arsenic, action of on sweat, 235
Arsenic in skin diseases, 359
Ascites, the importance of early paracentesis, 119
Asphyxia of new-born children, recent methods of treatment of the, 129
Asphyxia, treatment of in new born, 568
Asthma, a new theory of, 73
Asthma, use of pyridine in, 189
Asthma, for, 236
Assault, indecent and rape upon children, 452
Association, American Medical, 262

PAGE
Association, American Public Health, 263
Atropia in acute coryza, 138
Atropine, santonate of, 475
Auditory canal, remarks on the removal of foreign bodies from the external, 398
Aurium tinnitus, prevention of, 93
Bathing, cold, 505
Belladonna, 329
Belladonna, the extract of, 330
Bile capillaries, 136
Bladder, catarrh of the, 139
Bladder, extirpation of the, 568
Blistering by cantharides, 139
Blood, conditions which determine the coagulation of the, 413
Bovine virus, 29
Bread for the scrofulous, 72
Breast, inflammation of the, 171
Breast, cancer of, 354
Bright's disease, the pathogeny and treatment of, 560
Bright's disease, the treatment for, 361
Bromidrosis of the feet, treatment of, 42
Bronchitis, formula for chronic, 44
Bronchitis, digitalis in infantile, 188
Bruises, an ointment for, 382
Burns, an application for, 382
Burns, new dressing for, 457
Buttermilk in obstinate vomiting, 284
Cadavers, albumen in urine of, 121
Cade, ointment of oil of, 285
Caffeine, the action of, 521
Caffeine, some therapeutic effects of, 523
Calcium chloride in enlargement of lymphatic glands, 285
Calomel in cardiac dropsy, 189
Calomel as a diuretic, 475
Calomel, the incompatibility of and bromide of potassium, 331
Cancer of breast, 354
Cancer, excision of the rectum for, 315
Cancer of the male breast, 443
Cancer powder, 521
Cannabis Indica as a narcotic, 139
Cannabin tannate, 331
Cannabinon, 332
Cantharides, blistering by, 139

PAGE
Caoutchouc, solution of, 429
Capillaries, bile, 136
Capsicum, apone, a new preparation of, 190
Carbolic acid, the treatment of hæmorrhoids by injections of, 36
Carbolic acid in the treatment of acute earache, 181
Carbolic acid or phenic acid, 236
Carbolic acid, 313
Carbolic acid for freckles, 430
Carbon bisulphide in diarrhœa, 141
Carbuncle, treatment of, 313
Cardiac cachexia, 401
Catarrh, lime in the treatment of bronchial, 46
Catarrh of the bladder, 139
Cataract, diabetic, 208
Cataract patients, new method of treatment, 502
Catheterism, painless, 411
Caustic. a new, 138
Cephalotripsy, 101
Cerebral accidents, trephining in cases of, 560
Cerebral paralysis of children with aphasia, 228
Cerebral syphilis, 231
Chest, spontaneous evacuation of pleuritic effusion, 104
Child-bearing period of American women increasing, 120
China, medicine in, 412
Chloroform as a hæmostatic, 574
Chloroform poisoning, recuscitation from, 29
Chloroform, when not to be given in parturition, 360
Chloroform, observations on the administration of, 393
Chloral in whooping-cough, 92
Chloral hydrate, incompatibility of with potassium bromide and alcohol, 142
Chlorosis, formula for, 44
Cholera, continuation of in Spain, 121
Cholera, a case of suspected, 167
Cholera kept away, 268
Chorea, tender points in, 313
Chrysarobin and salicylic acid in psoriasis, 237
Chrysarobin internally in treatment of eczema and impetigo in children, 501
Circinata tinea, 92

PAGE
Cirrhosis, hepatis, 154
Club-foot, extreme measure for, 357
Coagulation of the blood, conditions which determine, 413
Coca and its congenere, 27
Cocaine, bad effects from, 568
Cocaine in the hypodermic treatment of syphilis, 575
Cocaine, salicylate in treatment of trigeminal neuralgia, 47
Cocaine in sea-sickness, 93
Cocaine in whooping-cough, 138
Cocaine, oleate of, 138
Cocaine, the effects of on the central nervous system, 177
Cocaine, on the local use of, 188
Cocaine, benzoate of, 190
Cocaine for nymphomania, 235
Cocaine, artificial, 284
Cocaine in ointments and suppositories, 285
Cocaine for urethral carunculæ, 357
Cocaine, painless operation under, 403
Cocaine in mercurial stomatitis, 412
Cocaine, salicylate of, 474
Cocaine poisoning, amyl nitrite in, 475
Cocaine as a diuretic, 523
Cocainomania, 501
Collodion dressings, experiments with, 543
Congress, international medical, officers and rules for, 67
Congress, the anthropological, 313
Congenital ranula, 344
Constipation, pill for habitual, 331
Convention, sanitary at Kalamazoo, 303
Convulsions, puerperal, 357
Convulsions, puerperal treated with pilocarpine, 411
Corn remedies, 430
Coryza, atropia in acute, 138
Coryza, a remedy for, 330
Coryza, the treatment of acute, 315
Counter-irritation, the role of in medicine, 187
Counter-irritation, anodyne, 188
Creasote water as a local anæsthetic, 137

PAGE
Cremation in France, 317
Cremation in Massachusetts, 72
Croup, membranous, formula, 45
Croup and bronchitis, apomorphine in, 92
Croupous pneumonia, 270
Curetting or raclage of the uterus, 25
Curette, in puerperal sepsis, the, 458
Cyst of broad ligament, operation, 403
Cystitis, chronic, 158
Dandruff, lotion for, 285
Death, a certain sign of, 357
Deodorized iodoform, 188
Diabetic cataract, 208
Diabetes insipidus, valerian in, 329
Diabetes insipidus, treatment of, 47
Diarrhœa, bisulphide of carbon in, 141
Diarrhœa, opium in infantile, 189
Diarrhœa and dysentery, a valuable remedy for, 333
Dietary, the, in indigestion, 225
Dietetic treatment of disease, 369
Dietetic fallacies, 503
Digestion and dyspepsia, 193
Digitalis, massive doses in lobar pneumonia, 185
Digitalis in infantile bronchitis, 188
Diphtheria, points in the etiology and pathology, 66
Diphtheria treated as an inflammation, 145
Diphtheria, iodoform in, 285
Diphtheria, iodide of potassium in treatment of, 383
Diphtheria as a chronic malady in particular individuals, 417
Disease, official nomenclature of, 27
Disinfectants defined, 221
Disinfection of rooms, the mercurial, 221
Diuretic mixture, 45
Diuretic, Indian hemp as a, 238
Diuretic, calomel as a, 475
Doctors, lady in Italy, 72
Doctor, the as a patient, 426
Dover's lotion, 476
Dropsy, cardiac, calomel in, 189
Duties, our reciprocal, 24
Dysentery, the microbe of, 268

PAGE
Dysentery and diarrhœa, 338
Dyspepsia and digestion, 198
Dyspepsia, papine in, 286
Dyspepsia, functional, 382
Ears, peroxide of hydrogen for suppurating, 94
Earache, carbolic acid in the treatment of acute, 181
Eczema, a solution for use in, 381
Eczema, a paste for use in, 381
Eczema, ointment for ciliary, 430
Eczema and impetigo in children, 50
Electricity, specific cure for extra-uterine pregnancy, 28
Electricity, faradic in rigidity of os uteri during labor, 473
Electrolysis, removal of superfluous hairs by, 243
Embolism, a report of a case of fat, 49
Embalming the dead, 172
Emesis for removal of foreign bodies in air-passages, 63
Emmenagogue, manganese as an, 521
Emphysema of the lungs, 51
Empyæma, a case of pulsating, 252
Enterocele, vulvar and vaginal, 81
Enuresis in children, treatment of, 65
Epididymitis, oil of sandal wood for, 91
Epilepsy, 296
Epilepsy, the treatment of, 48
Epilepsy, Brown-Sequard's mixture for, 236
Epilepsy, peroxide of hydrogen in, 330
Ergotine, injections in goitre, 93
Eruptions due to certain medcines, 142
Erysipelas, resorcin for, 329
Erysipelas, formula for, 382
Ether, styptic or hæmostatic, 94
Ether and opium in smallpox, 237
Eucalyptus and glycerine as a dressing for erysipelas, 523
Eucalyptus, oleum in malarial affections, 576
Evolution in medicine, 74, 311
Expectorant, nacerine as an, 472
Eye-ball, foreign bodies in and injurious to the, 385
Faith cure, 268

PAGE
Feeding, infant, 160
Filter, a quick, 314
Finger nails in disease, 133
Fistula in ano, 258
Fistula, a case of vesico-vaginal, 337
Flooding, strychnine to prevent, 284
Fluids, influence of, on nutrition and in the treatment of obesity, 299
Foot, rodent ulcer of, 349
Fracture, ununited Colles's, of radius, 258
Fracture, treatment of by massage, 495
Francesceine, 284
Freckles, carbolic acid for, 430
Galactagogue, a new, 330
Gall-ducts, a case of congenital partial obliteration of the, 54
Ganglion, three cases of compound of hand and wrist, 492
Gastric catarrh in infants, sulphate of iron in the, 140
Glands, calcium chloride in enlarged lymphatics, 285
Glycerine for relief of dry fever tongue, 411
Gonorrhœa, kava as a remedy for, 44
Gonorrhœa, the significance and diagnosis of in women, 346
Gums, the etiological connection between inflammation of the and disease elsewhere, 321
Hair, removal of supurfluous by electrolysis, 243
Hand, compound ganglion of, 492
Hæmatemesis, non-catamenial, 495
Hæmorrhage, quinine in, 495
Hæmorrhoids, the treatment of by injections of carbolic acid, 36
Hæmostatic, antipyrine as a, 332
Hæmostatic, ragweed as a, 475
Hæmostatic, chloroform as a, 574
Health in Michigan, 23, 62, 64, 108, 217, 259, 309, 351, 404, 444, 497, 564.
Heart in motion, instantaneous photograph of, 268
Heart, dilatation of the, formula for, 45
Hemp, Indian as a diuretic, 238

PAGE
Hepatis cirrhosis, 154
Hernia, umbilical, 161
Hip-joint disease, 215
Hip-joint disease, causation of, 233
Hip-joint, a case of amputation at, 339
Hip-joint, amputation at the for morbus coxæ, 445
Hydroecle, double, 559
Hydrogen peroxide in epilepsy, 330
Hydrogen peroxide in suppurating ears, 94
Hydrofluoric acid, a powerful antiseptic, 237
Hydrophobia, 269 498
Hydrophobia, Buisson's treatment of, 270
Hygiene in warm countries, 495
Hypnotic, paraldehyde as an, 93
Hypnone, another new hypnotic, 285
Hypnotism, during parturition, 186
Hypnotism, cure of mental diseases in, 504
Hysterical women, tympanitis in, 504
Ichthyol, 189
Ichthyol in rheumatism, 576
Impetigo and eczema in children, 501
Indigestion, the dietary in, 225
Infant feeding, 169
Infants, surgical treatment of, 428
Infanticide by perambulators, 359
Infantile bronchitis, digitalis in, 188
Infra-orbital nerve, exsection of, 559
Inhalations of oxygen in puerperal convulsions, 45
Innervation, indirect of skin, 569
Insanity, 73
Insects, for bites of, 44
Investigations, recent made at College de France, 433
Iodide of sodium in treatment of syphilis, 45
Iodoform, formulæ for the use of, 141
Iodoform, deodorized, 188
Iodoform in diphtheria, 285
Iodoform poisoning, 501
Iodol, 523
Iron, sulphate of in gastric catarrh of infants, 140

PAGE
Jaborandi for singultus, 38
Jaundice, treatment of catarrhal, 459
Jaw, malignant tumor of lower, 444
Jaw, removal of lower through the mouth, 244
Joints, sprained, 267
Kava as a remedy for gonorrhœa, 44
Kairin, thallin, etc., influence on the heart, 373
Knee-joint, clinical remarks on case of loose cartilage of the, 437
Knee-joint, two new bursæ of the, 457
Knights, new medical, 72
Lanolin, formulæ for preparations containing, 190
Lanolin an old remedy, 333
Lantamine, 574
Laparo-elytrotomy, 27
Laparotomy, explorative, 181
Laryngeal nerve, function of the recurrent, 447
Law relative to reporting cases of communicable diseases, 451
Lead poisoning, the diagnosis of, 73
Leucorrhœal discharge from roller skating, 26
Leucorrhœa, solution for, 522
Leucoplakia buccalis, 563
Libraries, circulating and infectious diseases, 317
Ligament, cyst of broad, 403
Lime in treatment of bronchial catarrh, 46
Lobelia inflata, external use of, 331
Lung test, failure of in infanticide, 505
Maltine, mizu ame or Japanese, 61
Mammary gland, temperature of the during the puerperum, 457
Man omnivorous, 73
Manganese as an emmenagogue, 521
Mania, a case of acute with perfect recovery, 481
Massage, treatment of fracture by, 495
Measles, formula for, 45
Meconeuropathia, 465

PAGE
Medical standing, elevation of the, 109
Medical society, the Michigan state, 218
Meningitis, tubercular, 324
Menopause, treatment of accidents of the, 300
Menstruation, new explanation of the process of, 379
Mental diseases, cure by hypnotism, 504
Menthol in nasal reflex neuroses, 286
Menthol in treatment of urticaria, 381
Mercurial ointment, inunctions of in treatment of pneumonia, 573
Methyl chloride spray for neuralgia, 286
Mercury, biniodide of, 331
Microbe of dysentery, 268
Microbes not essential features in disease, 314
Morbus coxæ, amputation at the hip-joint for, 445
Morphine versus hanging, 28
Morrhual, 475
Muscular movements, post-mortem, 73
Myrtol, 575
Nacerine as an expectorant, 474
Naphthaline in renal affections, 522
Naphthaline in ulcers, 574
Nasal bones, necrosis and removal of, 559
Nasal reflex neuroses, menthol in, 284
Nævus, ethylate of sodium in treatment of, 93
Neck, the nape of the, 314
Necrosis, a case of, 486
Nephritis, interstitial, nitro-glycerine in, 46
Nephritis, the action of nitro-glycerine on, 94
Nephritis vericellon, two cases of, 283
Nervous system, effects of cocaine on the central, 177
Nerve, function of the recurrent laryngeal, 477
Neuralgia, salicylate of cocaine in the treatment of trigeminal, 47
Neuralgia, menthol chloride spray for, 286

PAGE
Neuralgia, on the etiology of, 489
Neuritis, pilocarpine in optic, 236
Neuroses, apomorphia in obstinate, 47
Nigra silex, 284
Nipple, inflamed, 382 476
Nitro-glycerine in intestitial nephritis, 46
Nitro-glycerine, the action of in nephritis, 94
Nutrition, the influence of water on, 271
Nymphomania, cocaine for, 235
Obesity, the influence of fluids on nutrition and treatment of, 299
Obstetrics in Vienna, 500
Oleate of cocaine, 138
Ophthalmia, alum in purulent, 46
Opium in infantile diarrhœa, 189
Opium and ether in small-pox, 237
Optic neuritis, pilocarpine in, 236
Organism, the minutest known, 270
Os uteri, faradic electricity in rigidity of during labor, 473
Osteomyelitis, osseous panares analogous to infective, 495
Ovarian menorrhagia, potassium bromide in, 139
Ovariotomy, 315
Ovaritis, interesting case of, 560
Panares, osseous, analogous to infectious osteomyelitis, 495
Papine for dyspepsia, 286
Paracentesis, the importance of early in treatment of ascites, 119
Paraldehyde as a hypnotic, 93
Paralysis, depending upon idea, 565
Parturition, hypnotism during, 186
Parturition, a paper on separation of symphysis pubes during, 289
Parturition, when not to give chloroform in, 360
Pasteur's patients, 357
Pencils of ointments and pastes, 476
Penis, gummates of the, 442
Pepsin, contribution to the knowledge of, 40
Perambulators, infanticide by, 359
Periostitis, rheumatic, Da Costa's formula for, 44
Peritoneal surgery, 309
Phlegmasia, ointment for, 138

PAGE

Pilocarpine in the treatment of adenitis, 574
Pilocarpine, puerperal convulsions treated with, 411
Pilocarpine in alcoholism, 92
Pilocarpine in sudden loss of hearing, 141
Pilocarpine in optic neuritis, 236
Pill excipients, 238
Placenta retained, 241
Pleuritic effusion, spontaneous evacuation of, 104
Pleurotomy, antiseptic in case of pulsating empysema, 252
Pneumatic cabinet, three months' experience with the, with notes and cases, 529
Pneumonia, croupous, 270
Pneumonia, pilocarpine in treatment of double, 236
Pneumonia, massive doses of digitalis in lobar, 185
Pneumonia in young children, 377
Pneumonia, treatment of with inunctions of mercurial ointment, 573
Potassium bromide and lotions of ether for sunstroke, 361
Potassium bromide, the incompatibility of calomel and, 331
Potassium permanganate, the toxic effects from, 575
Postmortem muscular movements, 73
Prefœtal dilatation of the vulva, 513
Pregnancy, a remarkable product of, 22
Pregnancy, extra-uterine, electricity a specific cure for, 28
Pregnancy, pruritus of, 138
Pregnancy, the use of antipyrine during, 189
Preparations, eligible of drugs commonly used, 459
Prescriptions, criticisms on familiar, 523
Prolapsus, uterine, 249
Pruritus ani, formula for, 44
Pruritus of pregnancy, 138
Prurigo, 459
Psoriasis, chrysarobin and salicylic acid in, 237
PUBLICATIONS, NEW:
  Acne (Buckley), 462
  Anatomy, practical human (Weisse), 125

PAGE

Auscultation and percussion, a manual of (Flint), 176
Brain rest (Corning), 318
Chemistry, manual of, (Fowne's), 31
Chemistry, applied medical, (Wolff), 32
Chemistry medical, (Bartley), 34
Childhood, the first three years of, (Perez), 319
Cholera, (Stilla), 317
Dietetics, a manual of, (Fothergill), 310
Digestive organs of infancy and childhood, diseases of the, (Starr), 365
Drainage for health, 510
Ear diseases, guide to the study of, (McBride), 32
Fractures and dislocations, (Pick), 366
Hay fever and its successful treatment, (Sajous), 271
Health, the ten laws of, (Black), 223
Insomnia; and other disorders of sleep (Lyman), 572
Management of labor and the lying-in period, (Landis), 223
Materia medica, a manual of organic (Maisch), 267
Medicine, the principles and practice of by American authors, (Pepper), 76, 126, 273, 460, 508
Microscopical technology, 507
Midwifery, a treatise on the science and principles of, (Playfair), 368
Midwifery, the science and art of, (Lusk), 175
Milk analysis and infant feeding, (Meigs), 30
Nose and throat, lectures on diseases of the, (Sajous), 124
Operative surgery of the brain (Roberts), 571
Postmortem examinations, (Virchow), 30
Puerperal convalescence and diseases of the puerperal period, 174
Spinal cord, diseases of the, (Bramwell), 364
Surgery, operative, (Stimson), 79

PAGE
Surgery, principles and practice of, (Hamilton), 363
Surgery, practical, (Mears), 463
Tongue, diseases of, (Butlin), 414
Treatment, year book of for 1885.
Vaccination, essentials of, 509
Visiting list, *Medical News*, (Lea Brothers), 33
Visiting list, physicians', (Blakiston), 33
Women, manual of diseases of, (May), 125
Puerperal convulsions, inhalations of oxygen in, 45
Puerperal convulsions, 357
Puerperal sepsis, the curette in, 458
Puerperal septicæmia, 570
Purpura, hæmorrhagica, 436
Pyridine, the use of in asthma, 189
Quinine, neutral salt of, 314
Quinine, hypodermic solution of, 332
Quinine for traumatic neuralgia, 429
Quinine in hæmorrhage, 495
Quinine, to disguise the bitterness of, 575
Raclage or curetting of uterus, 25
Radius, ununited, Colles's fracture of, 258
Ragweed as a hæmostatic, 475
Ranula, congenital, 344
Rape and indecent assault upon children, 452
Rectum, excision of for cancer, 315
Rectum, new cause of prolapsus of the, 372
Reorganization, 260
Respiration, simple method of artificial, 569
Retina, the photographing of the living human eye, 358
Reviere's sedatine portion, 287
Rheumatism, gout, diabetes and chronic Bright's disease, clinical and pathological correlation of, 406
Rheumatism, Grineviski's ointment for acute, 474
Rheumatism, ichthyol in, 576
Rhus poisoning, 282 283
Rhus, for poisoning, 286
Rickets, 362
Rigor mortis, are the muscles dead or alive during? 412
Rib, fracture of by sneezing, 72

PAGE
Saccharine, 269
Salol, 475
Salt, therapeutic action of common, 522
Sandal wood oil for epididymitis. 91
Sanitary convention at Howell, 163
Santonate of calcium, 381
Sarcoma, soft of the right testis, 162
Sassafras, its toxic properties, 285
Scarlet fever from cow's milk, 424
Scarlatina, the causation and treatment of, 118
Sclerosis, for spinal, 236
Semicircular canals, physiology of the, 111
Shoulder dislocations, painless reduction of, 413
Sigmoid flexure, examination of the with electric lamp, 458
Singultus, jaborandi for, 381
Skating, roller, leucorrhœal discharge from, 26
Skating ice, 74
Skin diseases, arsenic in, 359
Skin, indirect innervation of the, 569
Sleeping disease, 506
Small-pox, ether and opium in, 237
Small-pox, 412
Small-pox in Vienna, 72
Small-pox and vaccination, 495, 499
Sneezing, fracture of rib caused by, 72
Soap as a hygienic material, 422
Society, Michigan state medical, 351
Sodium, ethylate of, in the treatment of nævus, 93
Sodium, ethylate of, 330
Solaine, 575
Solution anchiestra, 522
Spine, lateral curvature of the, 282
Spinal cord, hæmorrhage of the, 296
Spinal tumors, diagnosis of, 323
Sprained joints, 267
Sterility due to uterine displacements, 405
Stomach, case of round ulcer of, pulmonary tuberculosis following, 212
Strychnine to prevent flooding, 284
Strychnine in acute alcoholism, 140

PAGE

Strychnine, urethran, an antidote to, 522
Sugar, a simple test for, 456
Suicide and its statistics, 450
Sunstroke, bromide of potassium and lotions of ether for, 361
Surgery, the advantages of the principles of dry dressing in antiseptic, 180
Sweat, external application for night, 94
Sycosis, 545
Synovitis of wrist-joint, 494
Symphysis pubis, a paper on the separation of the during parturition, 289
Syphilis, cerebral, 231
Syphilis, secondary initial lesion in mouth, 384
Syringe, nurses and the hypodermic, 359
Tabes dorsalis, 245
Tartar, 361
Teeth and mouth, antiseptic solution for, 430
Teething lotion, 92
Terpene in pulmonary lesions, 235
Testis, soft sarcoma of the right, 162
Tetanus, nature and treatment of, 560
Thigh malignant tumor of the, 301
Tinea circinata, 92
Tobacco, the physiological action of, 184
Toe, irritable, painless removal under cocaine, 403
Tongue, for dry in fevers, 411
Tongue, cyst of, 302
Tonic, nerve, 92
Tonsilitis in adolescents, 568
Tonsilotomy, hæmorrhage following, 506
Treatment, notes on, 41
Trephining in cases of cerebral accidents, 560
Tribromide of allyl, 575
Tuberculosis communicated by fowls, 570
Tuberculosis, pulmonary, treatment of by parenchymatous injections, 158
Tuberculosis, pulmonary, following a case of round ulcer of the stomach, 212
Tuberculosis, transmission of in children, 358

PAGE

Tuberculosis, treatment of, 92
Tubercular meningitis, 324
Tulipiferine, hydrochlorate of, 454
Tumor, malignant of the lower jaw, 444
Tumors, benign, 97
Tumors of the brain, scientific advance in the treatment of, 519
Tympani membrana, artificial, 316
Tympanitis in hysterical women, 504
Typhoid fever, veratrum in, 330
Typhoid fever, therapeutics in, 361
Typhoid fever, a fever mixture in, 383
Ulcer, rodent, of the foot, 349
Ulcers, naphthaline in, 574
Umbilical cord, tying the, 457
Umbilical hernia, 161
Urethran in tetanus, 429
Urethra, traumatic rupture of the, 502
Urine, test for bile in, 500
Urticaria, menthol in the treatment, 381
Uterine prolapsus, 249
Uterine displacements, sterility due to, 405
Uterus, raclage or curetting of, 25
Uterus, traumatic rupture of the, 502
Vaccination and small-pox, 495, 499
Valerian in diabetes insipidus, 329
Veratrum in typhoid fever, 330
Vesico-vaginal fistula, a case of, 337
Viburnum prunifolium, 286
Virginica chronanthus, 284
Virus, bovine, 29
Visiting list, the *Medical News*, 571
Vomiting, pill for nervous, 284
Vomiting, buttermilk in obstinate, 284
Vulvur and vaginal enterocele, 81
Warts, to remove, 381
Whooping-cough, chloral in, 92
Whooping-cough, iodized phenol in treatment of, 140
Whooping-cough, cocaine in, 138
Whooping-cough, nitrite of amyl in, 429
Will power, 413
Wrist-joint, synovitis of, 494
Zona, chronic, 495

795.

BOSTON MEDICAL
MAY 27 1887
LIBRARY ASS'N.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. JANUARY, 1886. NUMBER I.

ORIGINAL ARTICLES.

THE ACTION OF ALCOHOLIC LIQUORS IN HEALTH AND DISEASE.*

BY A. B. PALMER, M. D., LL D.,
Professor of Pathology and Practice of Medicine in the University of Michigan.

The committee designated by the President of this Society to report upon the subject of alcoholic drinks, brought to our notice at the last annual meeting, beg leave to say that they regard this matter as of the most profound interest and importance, whether considered from an economical, a social, a hygienic, or a strictly medical point of view; and considering the intimate relations of these articles to health and disease, and the very widespread influence they exert upon these conditions, it seems to us that no subject can more appropriately occupy the attention of this Society.

The fact that there are differences of opinion and practice among us in relation to the use of alcoholics in health and disease, if such differences are found to exist, so far from affording an objection to the introduction and consideration of the subject, is a strong reason for its discussion; but it should be treated in a calm and temperate manner, and in a scientific spirit. In this spirit we shall endeavor to proceed.

The term alcoholic drinks embraces all the liquids whose chief ingredient is ethylic or common alcohol, though in some of them are contained small quantities of the other alcohols, modifying, generally intensifying, in a slight degree, their effects. But into many of the details of their composition, for the purposes of this paper, it is not necessary to enter.

---

* A paper read before the Michigan State Medical Society, June 10, 1885.

As to the physical and chemical character of these liquors, it is sufficient to state that common alcohol, the product of the fermentation of organic, starchy, and saccharine substances, is the effective material in them all, that this alcohol is a definite, fixed, stable chemical compound, preserving its identity in whatever mixture it is found, whether it be in simple fermented liquors, as beer, wine, cider, and koomis, or in distilled spirits, as whisky, brandy, rum, and gin; and though the effects are slightly modified by various ingredients found in the different liquors, the chief modifying effects are produced by the amount of water contained in each, or by the extent of dilution of the alcoholic element.

Pure, or nearly pure alcohol, when applied to a living tissue, produces a very prompt and decided physical effect, chiefly by its strong affinity for water, which it takes from such tissues, changing their physical and chemical states. These effects we shall not consider, as alcohol is never taken as a beverage, or given as a medicine, in a concentrated form. In speaking of its ordinary effects, it is presumed to be diluted more or less, generally reduced to less than fifty per cent. of strength. In discussing the subject it is not deemed necessary always to specify the particular liquor in which it is used, as the essential properties of all the liquors are possessed in common. In all of them the alcohol is the article which effects the good, if good there be, or the harm, if harm results from their use. A small amount of nutrient material may be mingled with the alcohol and water in beer, wine, and koomis; and various adulterating substances, sometimes of an injurious character, may be present in any of the alcoholics; but such injurious substances are much less common than many suppose; and it is the simple alcoholic element, such as exists in *pure* liquors, that will here be considered.

In ordinary beer there is from three or four up to ten or twelve per cent. of alcohol. In natural wines, the fermented juice of the grape without additions (articles we seldom get), there is from four or five to sixteen or seventeen per cent. of alcohol, but in the made up wines there may be very little, or there may be as much as twenty-five per cent., or even more.

In distilled or ardent spirits the standard quantity of alcohol is fifty per cent.. There may be a little more, though oftener there is less than that amount in commercial articles. It cannot be too clearly impressed that in all these liquors the alcoholic strength is the chief matter governing the intensity of their effects, and this strength is determined by the amount of water present—by the amount of the dilution of the alcohol with this element.

The action of alcohol upon the living system may properly be considered under two heads:

First—Its physiological action, or its effects on the system otherwise in a healthy state;

Second—Its action as a therapeutic agent, or as a medicine in the treatment of various diseases and injuries, or its effects in morbid conditions.

This distinction is important to be made, but with alcohol, as with every other medicine, its essential therapeutical effects are governed, and must be judged of largely by its physiological action. This, after some general observations, will first be described.

The different substances taken into the system and operating upon it are classified rather loosely and in a general way as foods, poisons, and medicines.

A food is a substance which, when taken into the alimentary canal, is capable of being absorbed from it, and of serving either to supply materials for the growth of the body, or for the replacement of matter which has been removed from it, and which thus effects renewal. Foods, to replace matters which have been oxidized, must themselves be oxidized. Foods by such oxidation must be at least *force generators*, and all the higher forms are *tissue formers*.

Some substances, such as inorganic salts and some organic materials, serve to influence certain actions which may result in the liberation of energy; or, acting as inhibitory or restraining agents, may check the activity of parts, and by these effects serve as *force modifiers*. The internal organs of the body are balanced and governed in their action by excitor and inhibitory nerves, and paralyzing the inhibitory, as well as stimulating the excitor nerves and functions, will increase, though generally abnormally, the action of the organs concerned. The removal of the pendulum of a clock, or the balance-wheel of a watch, though adding no force, will allow the mechanism to run on more rapidly until it runs down. The paralyzing of the inhibitory nerves may give an appearance of stimulation, but in this, real and useful force is not augmented. These conditions may lead an observer to false conclusions, giving the impression that a real sedative, operating upon inhibitory functions, is a stimulant.

But excitors, such as condiments, mustard, pepper, cinnamon, etc., increase certain action, though they yield very little or no force by their oxidation. They stimulate the mouth and other parts of the alimentary canal, increasing the flow of digestive secretions, and often increase the appetite for food, and the power of digesting it. Food, digested and appropriated, is force, and thus the condiment may indirectly produce force. Some substances diminish action, general or special, and that leads to the diminution of all force in the system.

Other substances, as the active principle of tea and coffee, or of the coca leaves, make impressions upon the system which modify actions, resulting in changes of various kinds. These cannot be regarded as foods, as they supply no appreciable force by their oxidation, nor do they furnish any appreciable amount of material for supplying the tissues. They have, however, an apparent sustaining effect greater than alcohol.

According to Professor H. N. Martin, of Johns Hopkins University, one of the latest and most expert experimenters, and one of the most authoritative writers on physiology in this country, and whose work on the "Human Body" has received the rare distinction of being approved by our State Board of Health, a food must fulfill the following conditions:

First—It must contain the elements which it is to furnish and replace in the body, and also those elements leaving the body. Substances are of no use as foods which are not capable of oxidation under the conditions prevailing in the system, and which are not capable of construction into its tissues.

Second—Foods must be capable of being absorbed from the alimentary canal, and either by themselves, or the changes they undergo, must be capable of furnishing force, or the elements of tissues.

Third—(And this is his precise language), "Neither the substance itself, nor any of the products of its transformation in the body, must be injurious to the structure or activity of any organ. If so, it is a *poison*, not a food."

A *poison* is briefly defined by the quotation from Professor Martin in this last sentence. It is a substance which, when applied to or taken into the body, by its peculiar qualities independent of mere mechanical properties or of large bulk, is capable of inflicting injury upon the organism, either in its functions or structure, and which, when used in certain quantities, but still independent of great bulk, may produce death.

Medicines are substances given for the purpose of modifying favorably morbid actions and conditions, and are capable of producing such effects. They are generally injurious to persons in health, and are beneficial only when they produce favorable changes in diseased states. The same article may be a medicine or a poison according to the purpose and the conditions of its use. Thus, opium, prussic acid, arsenic, and corrosive sublimate are deadly poisons, but used in proper quantities, and in relation to certain morbid conditions, they are useful medicines.

Again, some articles are both medicines and foods. Of this class cod liver oil and malt are examples. Neither of these, however, has poisonous properties, in the ordinary sense of these terms.

These facts and principles seem necessary to be borne in mind for the purpose of placing alcohol where it belongs, and for understanding its proper actions.

THE PHYSIOLOGICAL EFFECTS OF ALCOHOL.

Alcohol is placed by all writers on toxicology among the poisons. No one questions that, in sufficient quantities, even when so diluted as not to produce its caustic effect, and independent of injury from bulk, it does material harm to the system, and may produce speedy death. The word *intoxication*, applied to its effects when taken in ordinary free quantities, implies its poisonous action, and it is rational to conclude that a poison is a poison still, though used in such moderate quantities that its injurious effects are not immediately and strikingly manifested.

The ordinary effects of alcoholics, as often experienced, or as superficially observed, are sufficiently familiar to all of us; but in studying their physiological and pathological actions, a more careful analysis of their phenomena is required.

In the action of a single or a few rapidly repeated doses of an alcoholic liquor, especially in one unaccustomed or but little accustomed to its use, a striking similarity will be found to that of the common anæsthetics, chloroform and ether.

"In the phenomena induced by all of these agents, whether speedily or more slowly effected, *four* somewhat distinct stages, but shading off into each other, may be observed when their complete action is developed."—(Richardson.)

In carefully observing the administration of chloroform or ether, these stages will be noticed:

First—A stage of irregular and peculiar excitement, perhaps due to a physiological resistance to the invading poison. There are restless movements, a flushed face, hasty exclamations, or impetuous loquaciousness, rapidity, but unsteadiness of mental action, soon *recklessness* of expression and conduct, effects chiefly due to *paralysis of the controlling functions.* The expressions will occasionally be bright, but oftener silly, and sometimes coarse, depending much upon the habitual character of the person. There may be an increased disposition to muscular movements, but the muscular strength is not increased.

Second—Very soon comes the second stage, when there is a continuance, more or less, of this apparent excitement, but with less muscular direction or control, due to enfeeblement of regulating functions, causing irregularity of movements, with little persistency or precision; and now there is an increased condition of mental confusion. Some of the muscles may still be exerted with considerable force, but others are much weakened, and there is little control for definite objects. In this stage, though at first the anæsthetic may have been repulsive, it is often desired, and is sometimes imperatively called for and taken with avidity.

Third—Then the third stage occurs, a stage of distinct muscular failure, not only in direction but in power. Struggles now cease or become very feeble, and there is now great mental confusion. The extent of the mental impairment, as compared with the muscular, will depend much upon the natural strength and steadiness of the normal mental functions.

Fourth—At length the fourth stage supervenes, that of the complete failure of the voluntary muscular movements, with entire mental insensibility or unconsciousness. Anæsthesia is then complete. The patient breathes, but generally slowly, the circulation goes on, but often feebly, and he nearly approaches the boundaries of death, usually, though not always, with a "return ticket," when the anæsthetic poison is not carried too far.

The ordinary anæsthetics (chloroform and ether), soon pass out of the blood and the tissues, and recovery from the different stages takes place in the inverse order of their occurrence; and this recovery is often accompanied with nausea and vomiting, and other evidences of depression.

In the case of alcohol taken into the stomach, these essential conditions occur, but more slowly and persistently. The stages of chloroform intoxication are marked by minutes, those of alcohol by hours. When a moderate quantity of any of these agents is given, only the first stage is induced, but when more is given, or the administration is continued, the subsequent stages follow.

With many the sensations, so long as sensations continue, are very agreeable; with others not so much so; they may be even distressing; but they are generally of a pleasant character, and often their repetition is desired. The secondary effects, or those sensations which appear on the subsidence of the anæsthesia, are often quite disagreeable. Nausea and vomiting may occur, not only at this time, but sometimes during the earlier action of these agents.

In the administration of these narcotic substances, the grades and differences of action depend upon the quantity taken, the constitution and temperament of the person, and upon other more temporary and accidental circumstances which may be present.

A quantity of chloroform or ether may be inhaled, or of alcohol imbibed, so small as to produce scarcely any perceptible effect. A little more will produce but a slight effect, while an increase will develop the whole of the advanced stages, and finally cause death. The same articles produce all these results, and the essential nature of their action is the same in all the degrees of their effects. They are narcotics throughout. All have a similarity of action easily traced.

When a glass or two of wine or of spirits and water is taken by one not much accustomed to their use, a flush of blood to the face and the general surface is observed. A flush of nervous action also occurs. There is usually an increased disposition to motion, and for a very short time greater sensibility to some impressions, or at least a more ready response to them, is had.

There is generally more rapid ideation, more agreeable feedings are commonly experienced, and a sense of fatigue, if before felt, is apt to be relieved. By the relaxation of the superficial vessels, more blood is brought to the surface, a feeling of coldness, if existing, is abated, and more warmth of the skin is often perceived. The heart, for a time at least, is usually quickened in its motion, though in the physiological condition it is seldom increased, even for the shortest time, in its actual force; and the countenance often manifests a more excited, or at least a different expression. This is the first mild stage of the alcoholic action upon a healthy system in its usual condition. The muscular strength is not increased above the normal, but, on the contrary, it is diminished, as has often been demonstrated by lifting at weights before and after the administration of ever so moderate an amount, and the muscular power is diminished in proportion as the quantity of alcohol is increased. By the relief produced by the narcotic or anæsthetic to a sense of fatigue, when such is present, the disposition to muscular action may be increased, but the power of the muscles is decreased.

In the *second* stage, when more has been taken, or when that taken has had its more full effect, the blush of the face becomes purplish, or, on the contrary, it may fade: the temperature diminishes, the action of the heart may or may not be quickened, but its force is generally *reduced.* There is now moderate failure of muscular direction, and some increased failure of muscular power, though there still may be a greater disposition to muscular exertion. There is some degree of mental confusion, though it may be slight. The regulating, restraining power is, however, markedly weakened, and there are more or less recklessness of expression and conduct, a ready excitement of feelings of either mirth or anger, and a more ready expression of such feelings; indiscreet confidence, silly sentiment, or extravagance and boasting are indulged in. There is the condition called "tipsiness," with different degrees of its manifestation.

This, in the progress of a case, shades off into the *third* stage, when a man is generally regarded as *intoxicated*, or drunk. The face may now be either pallid or purplish, the temperature is reduced, the motion of the heart usually diminished, often in frequency, and always in force. Vascular tension is less, there is marked failure of muscular direction and powers, the tongue is thick in expression, the lips and limbs are more or less palsied, there is obscurity of intellect, with increase of irritability of temper, or of foolish sentimentality, with still greater recklessness of conduct, and a loss of the sense of propriety; and the pugnacity, brutality, violence, and criminality appear, which all of us, in this day of newspapers, hear and know enough about. This stage may terminate in sleep, with restless mutterings, or profound snoring, in semi-convulsions, or more quiet narcotism.

In the *fourth* stage, or that of *dead drunkenness*, there is the culmination or perfection of alcoholic narcotism. The anæsthetic phenomena are present. There are muscular paralysis, irregular and stertorous breathing, feeble, often intermitting heart action, great fall of temperature, sometimes to four or even five degrees below the normal, with utter insensibility and unconsciousness, and the next step is death. This is more likely to occur than from the same degree of anæsthesia or narcotism from chloroform or ether, because of its longer continuance.

In recovering from the more advanced degrees of alcoholic intoxication, very distressing conditions are generally suffered. The visions and the obliviousness which precede are followed by an awakening which is a grave reality.

I have thus minutely, and I fear tediously, traced the general acute or immediate physiological effects of alcohol, and have showed its analogy—its substantial identity—with that of chloroform and ether, in order to enable us to see more clearly to what class of agents it belongs.

If chloroform is a poison, alcohol is essentially a poison. We waive, for the present, the question of its food properties. If such properties exist, they are so slight and trivial, compared with its other actions, as not to be worthy, in this connection, of being brought into the account. If chloroform is a narcotic, alcohol is a narcotic. If chloroform is an anæsthetic, alcohol is an anæsthetic. If one is essentially a depressing agent, so is the other. Their strong resemblance no one can question. The chief difference is that the alcoholic narcosis is longer continued, and its secondary effects are more severe.

It is this narcotic or anæsthetic action of alcohol, its power to diminish sensibility or modify the feelings, rendering the individual less conscious of outward disagreeable impressions, relieving a sense of fatigue, of pain, of dragging weight, of mental depression and distress, which has led to the popular error respecting it, and the contradictory uses made of it. It is in consequence of its diminishing outward impressions and inward monitions that it is taken to warm in winter, and cool in summer, to soothe in affliction, and render insensible to reproach or the upbraidings of conscience.

It does not relieve from cold by increasing temperature, nor from heat by diminishing it. It does not relieve the sense of weakness by increasing strength, nor of exhaustion by nourishing tissues; nor does it soothe affliction by increasing nervous power or manly control, nor does it assuage the stings of reproach, or the pains of remorse, by improving the conduct or purifying the conscience. It does not *remove* evils, it *covers* them; it generally aggravates their final results. But it is this temporary covering of evils in the condition of tipsiness and moderate intoxication that has given alcohol its fascinating and delusive power over so many of our race, and led to indulgences so often destructive of all happiness and all good.

But there are stronger evidences than this similarity to the other anæsthetics, and weightier opinions than my own, to show that alcohol, in its direct action, is a depressing rather than a supporting agent. The well known original investigator, professor, and author, Dr. Sidney Ringer, of London, and his associate, Dr. Harrington Sainsbury, have recently instituted a series of exact experiments to ascertain the action of the different alcohols on the isolated heart of that physiological animal, the frog. These experiments were conducted in the most scientific and careful manner, and rendered conclusive by many repetitions, and by the use of the most delicate instruments of precision. It was found that the action of all the alcohols was essentially the same in kind, differing only in degree. All of them arrested the heart in diastole—stopped its action in a state of relaxation or paralysis. None of them increased the power of the heart at any time, or in any degree of their action. They say in their report: "The position alcohol occupies is that of a narcotic, and it is probable that its action is very similar to that of ether. The sphygmographic experiments of Parkes and Wallowicz on man, showed clearly the accelerating effect [of alcohol] but gave no distinct indication of increased arterial pressure." The arterial pressure is well known to be the evidence of heart force. Increased frequency of pulsation is often the strongest evidence of diminished power. A very rapid, fluttering pulse usually occurs in extreme weakness.

The report of Drs. Ringer and Sainsbury closes with the following remark, announcing the most important fact which these experiments confirm, namely: "That by their action on the cardiac tissue these drugs [the alcohols] are clearly *paralyzant*, and this appears to be the case from the outset, no stage of increased force of construction preceding."—(Practitioners [London], May, 1883, page 350).

Dr. Martin, of Johns Hopkins University, the author and experimenter already referred to, performed a series of experiments with alcohol upon the heart of the dog, which brought this careful observer to precisely the same conclusion as to the paralyzant and contra-stimulant effects of this article. Professor Martin states as the result of his exact and conclusive observations as follows: "Blood containing one-eighth [of one] per cent. of alcohol has no immediate perceptible action on the isolated heart. Blood containing one-fourth [of one] per cent. by volume, almost invariably remarkably *diminishes* within a minute *the work done by the heart.* Blood containing one-half [of one] per cent. that is, five parts in a thousand, always diminished it, and may even bring the amount pumped out of the left ventricle to so small a quantity that it is not sufficient to supply the coronary arteries."

Professor Martin estimates that an ordinary *moderate* drink of brandy or whisky containing half an ounce of pure alcohol, or an ounce of the spirit, would supply to the blood of an ordinary sized man, the proportion of two and a half parts per thousand, the quantity he found diminishing so markedly the force of the heart's action, as tested upon the dog, by instruments of precision. These and the London experiments were made nearly at the same time, and by each without the knowledge of the others, and they have not been contradicted by any other observers.

Previous to these experiments Dr. Samuel Wilkes, of Guy's Hospital Medical School, London, one of the most acute observers and accurate and independent thinkers in the profession, from an analysis of his own personal experience, and his observations on other men, in an article in the *London Contemporary Review*, says: "If most persons analyze their sensations after imbibing any alcoholic drink, they will soon discover that to describe the effect produced upon them as *stimulating is a misnomer;* and that, consequently, the employment of the expression almost begs the whole question as to its operation and value, for there can be but little doubt that it is owing to this misapplication of the term *stimulant* to alcohol, with many conveying an idea of strength, that causes it to be so much recommended, and taken with so much satisfaction. If a person is low and a glass of wine produces a pleasurable effect, it is easy to regard it as a stimulant, and as having afforded some proportion of strength."

He adds: "Its stimulating effects may be regarded as *nil* compared with those which may be styled its *sedative* or paralyzing ones. In a word, alcohol, for all intents and purposes, may be regarded as sedative or narcotic, rather than stimulant." He classes it with opium, Indian hemp, and tobacco.

Dr. Anstie, who studied this subject with great care, and who, though holding some views with which we do not agree, is clear in his enunciation on this point, which the recent experiments confirm, says: "A general review of the phenomena of alcohol narcosis enables me to come to the conclusion, the importance of which appears to be very great, namely, that (as in the case of chloroform and ether), the symptoms which are so commonly described as evidences of excitement, depending on a *stimulation* of the nervous system, preliminary to the occurrence of narcosis, are, in reality, an essential part of the narcotic, that is, the *paralytic phenomena.*"

Professor Davis, who is styled the father of the American Medical Asssociation, in substance, says that alcohol is never changed in the stomach, but is absorbed into the blood, and while there, and going to all parts of the body, its presence retards those molecular changes which constitute nutrition, disintegration, and secretion, on which the phenomena of life depend; that it retards the elimination of waste matter, impairs nerve sensibility, lessens muscular power, and lowers the temperature of the body; and that a large part passes off speedily, unchanged, while there is no evidence whatever that such part as is retained a longer period is either assimilated or converted into any form of force.

Dr. Richardson, of London, the eminent sanitarian, experimental physiologist, and physician, and the author of numerous works, has long held similar views to these of Dr. Wilkes, or rather has had from his experiments and observations similar knowledge; and our own observations, which have continued on this subject for a long time, have, years ago, brought us to similar conclusions. There is, in our minds, no question of their correctness as applied to the ordinary physiological state.

In studying the effects of alcohol on the system, we must go beyond these acute or immediate effects in the physiological state. These acute effects show the essential nature of the article, but there are more remote effects, especially more permanant ones arising from its continued use, of much more importance than its immediate action.

In the habitual use of this article *four* stages of alcoholic change are recognized by Dr. Richardson, corresponding in many respects with the four acute stages which have been described. There is a mild *first* stage, where the indulgence is very limited, in which the condition deviates but little from the physiological state. There is a *second* stage where a change from the normal state is more preceptible, but yet where the subject of it is not regarded as a drunkard. A *third* stage where there is recognized unquestioned intemperance or inebriety; and *fourth*, where the man is a complete sot, given up to continued indulgence, is in the most debased condition, suffering from chronic and extreme alcoholism, tottering upon the verge of destruction, unfit for any useful occupation, a disgrace to himself, and a nuisance to all about him.

There are no differences of opinion as to the injurious, the pathological, and the destructive effects of alcohol upon the individual, physically, mentally, morally, and socially, and upon the family and society, when its indulgence is carried to the extent of inducing these latter stages. The whole controversy, if there is room for controversy, is respecting the lesser degrees of indulgence. All that admits of any honest and intelligent difference of opinion and expression, pertains to the matter of moderate drinking. Is there real benefit, or palpable injury? Is there safety or danger? Is there pleasure not overbalanced by suffering? Is there greater or less happiness and well being in what by many is called the "temperate use" of alcoholic drinks?

It is true that a person may take a quanity so small occasionally, or even habitually, or a moderately larger quantity at considerable intervals, as not to be seriously affected by it. There are many people who may be classed as temperate, who are not total abstainers. They may never carry the effect beyond the first degree of chronic alcoholic action. What is their condition, and how do they compare with total abstainers? Negatively, we may say, they are not stronger or more healthy. They cannot do more or endure more. They are not clearer headed, or purer hearted. We think it must be conceded by all of us that moderate drinkers are no better physically, mentally, morrally, or socially, than those who totally avoid these beverages. In this country, at least, where so many are abstainers, and where there are such large opportunities of comparison, this will be admitted. If the preceding view taken of the essential action of alcohol be correct, the moderate drinkers are not in quite as good a condition as the abstainers. No doubt, many temperate drinkers are better men, physically, mentally, morally, and socially, than are many others who are total abstainers. There are those who take a very moderate quantity of wine daily with their dinner who are superior, mentally and morally, to most ordinary men who do not take any; but the former are not superior because of their wine, and the latter are not inferior because of their abstinence. The contrast, as a rule, would be greater if the abstainers took wine.

But what is the particular condition of the average moderate drinker, as affected by his indulgence? His physical and mental condition, compared with what it would be without the alcohol, must be judged of by what we have seen to be the essential effect of the article. Can a debilitating, paralyzing narcotic agent, certainly poisonous in larger quantities, really improve the physiological or ordinary healthy condition of the system? This seems contrary to reason, and is contrary to correct observation and actual experience. The fact is, alcohol, in whatever quantity, taken in the physiological state, when perceptible effects are produced, is weakening instead of strengthening, is lowering instead of elevating.

But with the moderate drinker in course of time there comes to be, I may say inevitably, a feeling of the want of the narcotic influence whenever the accustomed dram or sip is omitted. A sense of uneasiness is felt which is relieved by the drink. With many, especially in our exciting climate, and with our fast habits, this becomes a feeling of urgent necessity, which is with difficulty resisted. The feeling is akin to that of the smoker when deprived of his accustomed cigar or pipe. When this is the case, the drinker's system is changed from the natural or physiological to an artificial—to the alcoholic state. He is constantly in a different condition from the habitual abstainer.

The surface vessels, especially of the face, are apt to be dilated, giving a reddish or bluish color to the countenance. The action of the heart is apt to be perceptibly changed. It is usually too rapid, but from modification of the innervation it may be too slow; and if no feverish excitement or irritability is induced, it is too feeble. The digestion is indifferent until the alcohol dilates the vessels of the stomach, and impresses in the accustomed mode its nerves. The mind is generally duller, until the vessels of the brain are dilated, so that more blood goes to that organ. Sensations of coldness are apt to be felt, until relieved by the soothing potion. The general sense is that of discomfort, until the peculiar sensation produced by the narcotic is experienced. An artificial state has been induced in which relief and comfort to the sensibilities arise from the wine, the beer, or the whisky and water; and that relief is to such an extent, and so common, that, losing sight of the fact that the unpleasant feelings are the result of the alcohol habit, the wisest men are often persuaded of the utility to themselves, and by parity of reasoning to others, of this moderate drinking.—(Richardson). They often feel better and can do more work when they have their accustomed drink than when temporarily deprived of it.

But the worst is to come. Everybody knows that, in this country at least, very few stop long at this stage of moderate habitual drinking. When the indulgence goes beyond this moderation, we have chronic alcoholism of different degrees of severity, as there are different degrees of indulgence, and differences in the powers of resistance and endurance. The effects that follow are familiar to all of us. The diseases of the stomach, the liver, the lungs, the heart, the kidneys, the brain, the whole body, we daily see. Gout, always the effect of alcohol in the individual or his ancestors—(Garrod),—neuralgias, nervousness, irritability, broken sleep, debility, inefficiency, moral perversion, indifference to obligations, malfeasance, in short, every form of physical, mental, and moral degradation follows. Some endure this state long, but an accident or a casual disease is badly borne, and the possibility not only of well living but of long living is destroyed.

Says Professor Flint: "The toxical condition called alcoholism enters directly into the constitution of many affections, such as cirrhosis of the liver, fatty liver, epilepsy, muscular tremors, gastritis, pyrosis, and various dyspeptic disorders. Indirectly, alcoholism favors the production of nearly all diseases, by lessening the power of resisting their causes, and contributes to their fatality by impairing the ability to tolerate or overcome them."

An alcoholic patient is dreaded both by the surgeon and the physician. A fracture, an amputation, the ligation of an artery, or the removal of a tumor is apt to be followed by severe consequences; and a pneumonia, a hepatitis, a fever, the cholera, or almost any internal disease, is usually much more severe and more likely to be fatal. Such cases require different management from the same class of accidents and diseases occuring in non-alcoholized persons; and the hospital experience and conclusions in large cities, derived from such cases, embodied in books, and followed by private and country practitioners in the treatment of unalcoholized people, destroy another proportion of human life. These remarks apply to cases falling short of positive drunkenness, to the cases of habitual, steady drinking, to persons who may maintain a show of health, but who are on the verge of a crater, into which they are liable at any moment to fall. If they escape until *age approaches, their powers much sooner decay*, and they may be permitted to die of premature senility. Their chances of life are even less than those of the periodical drunkards, whose extreme excesses attract much more attention, but whose periods of abstinence afford an opportunity for partial recuperation.

These facts are being recognized by life insurance companies, and these companies are becoming very wary of beer and wine drinkers, who maintain for a time a fair exterior.

Sir Henry Thompson, the distinguished surgeon of London, says: "Few are aware of the mischief done in England by what is regarded as the moderate use of fermented liquors."

We will not dwell upon the extreme and more terrible conditions of inebriety and alcoholism, mental, moral, or physical, lest we should be considered "sensational" or "fanatical." The evils of intemperance, however, *are* sensational, and their contemplation is apt to produce what by many is called "fanaticism." In a report to a medical society like this, there should be the statement of scientific truths, rather than appeals made to sentiment or feeling; but important truths, whether scientific or otherwise, affecting the deepest and most sacred of human interests, *are felt* by all benevolent and sensitive minds.

In considering the effects of alcohol and the relations of its use to the welfare of the race, we cannot overlook the subject of *heredity*. Every permanent condition of the organism, every habit of body or mind in the parent, has an influence greater or less upon the qualities and tendencies of the offspring. This is a fact now so generally acknowledged as to require no proof or discussion. Our instincts are chiefly the transmitted habits of our parents and ancestors; and we are to a larger extent than we often realize, the aggregate of qualities we have inherited. We can make of ourselves what we will, only within certain limitations, and our innate propensities at least, however they may be controlled, are received from our ancestors, and are apt to govern us. This is particularly true of physical conditions. Gout, as already stated, is the result of alcoholic indulgence, as it is a disease unknown among people, as the Mahommedans, who, from religious restrictions, or from other causes, have never for generations used alcohol in any form; and this abnormal state is well known to be transmitted as well as acquired. Other evil qualities and defects produced by drink, as well as by other sins that establish characteristics, are visited upon the children unto the third and fourth and later generations.

Morbid qualities of a milder character in the parents may be exaggerated and otherwise modified in the offspring. Thus, *inebriety* with its ordinary perversions in the parent may become idiocy or insanity in the child; and moderate drinking in the father, creating an appetite which in him is controlled, may produce drunkenness in the son, or even dipsomania in the son or the grandson, which may be beyond all control. Our personal observations have afforded sufficient instances of this kind, and the general testimony of those who have given attention to this subject abundantly confirms the statement.

In a report of the Medical Superintendent of our Eastern Michigan Alsylum for the Insane, it is stated: "A careful analysis of several hundred persons treated shows that in about seven and one-half per cent. of the males, and about eight and one-half of the females, there was a definite history of inebriety of one or both parents." It is not stated in how many cases there was drinking somewhat short of what is usually reported as inebriety in the parents. "The female children of drunkards suffer in relative frequency from the following forms of insanity: Mania, dementia, melancholia, and idiocy. * * * In some instances an inebriate heredity develops in one child as depravity, in another as inebriety, in a third as hysteria, and in a fourth as insanity. * * * Drunkenness produces a transient insanity, even in a healthy brain. Chronic drunkenness produces organic brain diseases, bringing in their train impairment of the memory, inactivity of the reason, a weakness of the will, and loss of the natural affections; all of which are capable of transmission from parents to their children." These statements of Dr. Hurd are fully sustained by the well known statistics of the late Dr. Howe, of Boston, and by many others.

There is a connection, often marked, in the use of the different narcotics. The alcohol habit tends to produce the opium habit, and the reverse; one may be substituted for the other, and the two are often indulged together. The same principle, to a greater or less extent, applies to the wide-spread tobacco habit, and to the less prevalent chloroform, chloral, and hasheesh habits. The indulgence in any one begets a tendency to indulge in others. The habitual use of any of them produces a constitutional narcotic stage, different from the normal, and which is always, in a greater or less degree, a deterioration. In none of its forms, and for no purpose is the narcotic habit anything but the reverse of an improvement upon nature.

The occasion will not admit of a further discussion of the subject of heredity in its relations to alcoholism and the other narcotic habits. These habits are the present bane—a crying evil of nearly the entire world, and we may well consider and teach others to consider the influence of our personal indulgence upon those that are to come after us—the habits of this generation upon those that are to come.

The question as to the oxidation of any portion of the alcohol taken into the system, and the consequent development of force by it, is not absolutely settled. Baron Liebig, who for a time held great sway in the scientific, especially the chemical world, taught that alcohol, a hydro-carbon, united with oxygen in the lungs, producing carbonic acid and water, thus becoming "respiratory food," and in so doing producing heat and perhaps other forms of force. The simplicity of this theory (for it was only theory), and the high authority of its author, caused it to be quite generally accepted, though resting upon a basis so purely speculative, and, as declared by high modern authority, "without a single experimental fact for its support." But Drs. Prout and Percy of England, Böcker, of Germany, Davis, of this country, and others, ascertained by the most direct and conclusive experiments, that less carbonic acid was given off from the lungs, and therefore less combustion of carbonaceous matter occurred in them, when alcohol was taken, than without it; and that the sum total of elimination of effete matters was diminished by the presence of this article in the system. This proved that alcohol retarded those chemical and vital changes by which nutrition, secretion, and elimination are effected. The inference from this was, that by this article, under the circumstances in which these experiments were tried—in comparative health and with an ordinary diet—the production of force was diminished and not increased. This inference was corroborated by the fact that the thermometers showed that the production of heat was diminished, and presumably other forms of force also, and that *Liebig's theory was untrue.* Numerous experiments have since proved the absorption of the alcohol from the stomach unchanged, its diffusion throughout the body in the blood, and its passage out of the body by the lungs, by the skin, by the kidneys, and other excretions, still unchanged.

Lallemand, Perrin, and Duroy, of France, from a carefully conducted series of experiments, concluded that *all* the alcohol taken was eliminated without oxidation; but since then other experimenters have come to the conclusion that somewhat less was eliminated than was taken, and that an ordinary healthy man, in the course of twenty-four hours, can consume or oxidize about an ounce and a half of pure alcohol, or three ounces of spirits, if taken in divided doses, during that time. This conclusion is denied by still others, who claim that the quantity not collected during the experiments is retained for a longer time in the blood and the tissues, and passing off very slowly escapes detection. So this question is still open; but it must be admitted that if this ounce and a half is oxidized, it prevents the oxidation of a greater amount of other hydro-carbons, so that the result is as before stated, the diminution of power from the ingestion of alcohol in the physiological state. There is certainly no proof that, in this state, any form of force is enhanced by the addition of alcohol to the diet. But even if the ounce and a half is oxidized, as claimed, this would produce less heat than an equal quantity of fatty food, and its interference with such other oxidation would render its action something else than merely negative.

The fact of its interference with oxidation being established, the advocates of its use claimed that it did good by preventing waste, or destructive metamorphosis of tissues, and thus served as an indirect—a sort of adventitious or supplementary food, or as an article which obviated the necessity for as much food. Granting that it has this property, is it a desirable effect? Does it not diminish force by diminishing such molecular action; and should the molecules of the tissues, when they have performed their function and their vitality has become impaired or exhausted, be prevented from undergoing destructive metamorphosis and having their places supplied by fresh material? It is claimed, and is true, that fat is often increased in the system by the use of alcohol, but the accumulation of fat, a less vitalized material than other tissues of the body, is by no means an evidence of health or force, on the contrary it is often an evidence of disease, and when it takes the place of normal tissues we have one of the most hopeless forms of pathological change.

But whatever may be the fact respecting its food properties, direct or indirect, its leading action, its all important and (beyond the supposed effect of the alleged oxidization of an ounce and a half in a day) its exclusive effect is to modify action and energy, and not to produce force.

From every principle, chemical and vital, and from every fact of observation and experience, we are driven to the conclusion that nothing but harm can result from the indulgence in alcoholic drinks as beverages.

THE ACTION OF ALCOHOL AS A MEDICINE.

The discussion of the therapeutic properties of alcohol takes us into another department of scientific principles and practical considerations. While the remedial effects of medicines in disease are largely determined by their essential action in health, yet the difference of condition in these respective states is such that an agent which may affect injuriously the one, may act beneficially upon the other. No one can suppose that opium, mercury, or strychnine can do other than injury to a person in health, yet their temporary actions in certain diseases are beneficial.

Alcohol, though not a stimulant in its essential action, nor an increaser of power in a healthy person, may possibly indirectly act as an increaser of force in a sick or injured one. By soothing a depressing irritation, or by relieving a severe shock, or by modifying favorably some pathological condition, thus removing or abating injurious cause, a beneficial effect may follow. Though certainly very little and perhaps none of the alcohol taken in the ordinary or healthy state, when other food is present in the system, is oxidized, yet in certain diseased states, and in the absence of sufficient appropriated food, it is possible that some, or more of the alcohol than in the physiological state, may be oxidized, and serve to sustain the organism. Some observed facts seem to indicate that this is the case, and though not demonstrated, it is believed by many careful observers. There are many remedies which we are convinced do good in diseases, but of whose essential mode of operation we are ignorant. Whatever the mode of operation, whether as an oxidized material supplying force, or as simply a modifier of actions or a sedative or narcotic agent quieting irritation, it has a place in the materia medica, and though on the whole, as prescribed in sickness, it may have done much more harm than good, we would not have it stricken from the list of remedies. We would, however, have it restricted to the apothecaries' shelves and the sick room, and for the most part it should be kept upon those shelves in a pure form and labeled *poison*. When prescribed, it should be with caution, in definite doses, at definite times, and properly diluted with water or with some nutritive fluid. In our judgment it should be prescribed with very much less frequency than it is in the practice of many, and with different views of its therapeutical action than have heretofore largely prevailed.

Only a portion of the indications and contra-indications for its use as a medicine can here be noticed. Those illustrative of the principles of its action will be selected. We would give it as a narcotic and soothing agent in certain conditions of suffering and shock, as we might give opium, ether, or chloroform, rather than as a direct stimulant to increase the power of the heart when failing from hæmorrhage or simple exhaustion. We would not give it as a remedy for dyspepsia, at least not to be continued for any length of time in any doses of whatever size. We would particularly avoid it in those functional derangements of the liver and digestive organs commonly described as biliousness. We would also avoid it, except in some rare cases and for the most temporary purposes, in all forms of nervous disturbances of a chronic character, and not even temporarily, certainly as a rule, when opium, the bromides, valerian, and other similar agents were available. We might give it for sudden faintness, as we would dash on water or administer a slap, when neither ammonia, camphor, or ether was at hand. We might sometimes give it for pain or restlessness, when other narcotics more efficient could not be had, or where from idiosyncracy they did not agree.

In shock from injury or great suffering, it might in some cases dispute the preference with ether, chloroform, opiates, quinine, and warm coffee. We would especially avoid its use where there was to be exposure to great cold or heat. It may relieve a sense of fatigue as may opium, coca leaves, or other narcotics, but its secondary effects render it undesirable for such purposes; and the proper remedy for fatigue is easily digested food and *rest.*

We would not prescribe it with the view of preventing or curing consumption, and scarcely ever for the relief of any particular symptoms in that disease. We would never give it in cholera, even if deprived of every other remedy.

We would seldom give it in typhoid or other low forms of fever, especially in non-alcoholized persons—perhaps never when food could be taken and appropriated, and when the other articles of the materia medica were at hand; and certainly never with the view of its operating as a direct and permanent stimulant of the heart's action. We would avoid it in all diseases of the liver, organic as well as functional, and also in Bright's disease, and other affections of the kidneys. It might be tried in some acute inflammations of the lungs, and in severe external inflammations, where the severity of the suffering produced decided shock and consequent depression, and in the absence of opium, quinine, the salicylates, and other remedies. Indeed, in full doses it might arrest or markedly abate an inflammation in its incipiency, but not so certainly as the other remedies just named, or as jaborandi, antipyrine, or various other articles. In the absence of ether and chloroform we might give it in free doses, sufficient to produce drunkeness, to relieve the suffering and shock of a cutting operation, or for reducing a dislocation.

In short, we would use it on the same general principle as other powerful and poisonous medicines, bearing in mind its essential physiological actions as governing its applicability, considering its limited therapeutical powers, and the mischief immediate and remote it may do; and when prescribed at all, it should be in definite quantities, with proper dilution, and with particular precautions and directions. We would never advise it to be left in the hands of the patient to be taken at his discretion, according to his feelings, or to be controlled by the whims of an ignorant nurse or attendant; and we would never sanction or allow its continuance for an indefinite period of time. The formation of an alcohol habit should be guarded against with the same precaution as that of the opium habit, both of which, by an unguarded manner of prescribing and leaving to the discretion or rather indiscretion of the patient, have wrecked many a valuable life.

We would consider it our duty by our precept and example to discourage its use as a social indulgence, or as a frequent resort as a medicine for slight affections, or on any other than important and clearly necessary occasions. In our judgment these occasions occur but seldom.

It has already been stated that the habitual user of alcohol is in a different condition from that of an habitual abstainer, and this is particularly true in reference to the immediate effect of the alcohol itself on the system. The habitual user of opium will take quantities that would kill several persons, with only the immediate effect of relieving the miserable sensations his habit entails, and of perhaps brightening his intellect, while it would extinguish that of many others. So, to a greater or less extent, with the habitual user of tobacco and other narcotics. In a severe illness of an opium habitue, it might not be prudent to withhold his long indulged narcotic. In the case of an alcoholic habitue. affected with an acute disease, it might not be prudent to withdraw his accustomed glass of wine or spirits. At any rate, the wine or spirits will have a different effect upon him from what it would have upon one who had not formed that habit. This fact accounts in part for the common recommendation in many of our medical works of a moderate quantity of wine or spirits in the dietary of the sick. Most of the patients in the foreign hospitals, and very many in the large cities everywhere—in the places where most of our books are written—are more or less alcoholized habitually. That such a "dietary" is neither necessary, best, or, as a rule, innocent with our abstemious non-alcoholized patients, is our deliberate and positive conviction; and we doubt most decidedly its propriety in many of the hospital cases where it is prescribed. In the total abstinence hospitals in England (there are some such), though it is possible some patients might be benefited by alcohol who do not get it, yet the proportion of recoveries is much greater than in the hospitals where alcohol is freely used. A very respectable and an increasing number of practitioners in Great Britain are protesting against the prevalent use of this article in the treatment of the sick.

Though many other thoughts upon this subject press upon our minds, this paper, already grown far beyond our intentions, must be brought to a close.

The preceding view of this subject prompts us in conclusion to say, that as our scientific knowledge of alcohol advances our practice with it and our language respecting it should change.

As to its physiological effects, we have certainly in many respects been mistaken in the past. We have said it excited the vaso-motor nerves of the surface, and thus caused increased vascular action in the cutaneous circulation. We know now it depresses those nerves and causes passive dilatation of the surface vessels. We thought it increased animal heat. The thermometer shows it diminishes it. We thought that from more blood coming to the surface and sometimes causing a feeling of warmth, it would diminish the danger from exposure to cold. We find that from less heat being produced in the centres, and more being lost from the surface by the increased blood in the superficial vessels, the danger of exposure to cold under its influence is greatly increased.

We said the alcohol taken was oxidized in the lungs, and that increased heat and other forms of force were thus produced. We find it is not thus oxidized, or if at all, in so small a quantity that its effect is ordinarily much more than counterbalanced by the diminution of the oxidation of other hydro-carbons which it produces; so that under its influence heat and the other forms of force are lessened.

We thought it increased muscular strength, and it was taken to aid men in their work. We find that it diminishes muscular power, both for immediate action and with reference to endurance.

We thought as it often makes one *feel* stronger, that this was evidence that one *is* stronger. We now know that this feeling is deceptive, and is not even presumptive evidence of increased strength. We see that the drunken man while boasting of his strength falls to the ground.

We said it was a direct heart excitor. We now know it is a direct heart depressor.

We said, and nearly all the text-books still say, it is a direct *cardiac stimulant.* We know from most conclusive experiments it is a direct *cardiac paralyzant.*

We thought, and we may sometimes still think, it makes us witty. We know from observation it makes men silly.

We thought it brightened the intellect and might make men wiser. We find that in the long run, at least, it dulls the intellect and makes men foolish.

Wine has been called the "milk of age," and we thought it supported advanced life. We know that the aged live longer and retain their powers better without its use.

As a medicine, or prophylactic measure, we thought it protected against epidemic diseases. We now know it invites attacks.

We thought it prevented and even cured consumption. We know it is the most frequent cause of at least one form of that disease—fibroid phthisis.

We thought, moderately used, it was good for many things.

Those who have given most careful attention to the subject believe it is good for very few things.

The demonstrations of modern science have shown the truth of the ancient saying of the Wise Man: "Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise."

ORIGINAL TRANSLATIONS.

JAPANESE LITERATURE.

TRANSLATED BY JUNE KICHI KIMURA, ANN ARBOR, MICHIGAN.

A REMARKABLE PRODUCT OF PREGNANCY.

The following case occurred in Dr. T. Kurimoto's practice, while he was officially engaged in Okayana Medical College:

A farmer's wife, who lived in the vicinity of the college, suddenly began to menstruate after a long suppression; and a singular mass, colored with blood, was found in the discharge. Dr. Kurimoto carefully preserved the mass and made a minute dissection of it. As he expected, the amnionic membranes, the liquor amnii, etc., of conception, were found complete. Within the membranes, and floating in the fluid, a little moving body was found which presented the manifest appearance of an embryo—a little curved body, with eyes and four projecting points the rudimentary limbs. It was one and a half centimeters in length, and weighed 0.05. This specimen will be prepared and placed in the medical museum of the University of Tokio.

History.—The woman is twenty-eight years old; married; never had any previous severe illness. Family history good. She began to menstruate when sixteen years of age. She married when nineteen years old. Seven years ago, when she was twenty-one years old, she bore a strong, healthy boy. In her twenty-third year she again became pregnant. At the fifth month she began to flow, with unusually severe pains in the lower abdominal (hypogastric and left inguinal) regions; at this time, unfortunately, a miscarriage took place. One year afterward, she became pregnant for the third time. At full time labor pains began. The first and second stages of labor passed off favorably, but one great difficulty was experienced in the puerperal state, which was a *sine qua non.* Although a gynæcologist was called in consultation it was of no avail; the child was born dead. This difficult parturition greatly exhausted the patient and the post-partem chill was severe; yet in three days she recovered and began her work. She completely regained her health, and became as healthy and strong as before the confinement, but the menstrual function was entirely suppressed. She, therefore, at one time thought that she had again conceived.

On September 6, 1885 (that is, about two years after the suppression of the menses took place), about 6 o'clock in the afternoon, severe pains began suddenly in the same region as before, and at the same time about three ounces of blood at once discharged from the vagina. This frightened the patient, and the professional services of Dr. Kurimoto were immediately called upon. He, after properly treating the patient *pro re nata*, examined the blood, and unexpectedly found a little moving body, stained with blood, which was nearly transparent in the centre, somewhat resembling the eyeball of a fish. Inside of this ball a little body moved to and fro. So far as its activity and shape are concerned, it resembles those small creatures found in stagnant water. Its activity continued about two hours until placed in alcohol. The post-partem hæmorrhage, if it might be so called, ceased within an hour. The patient recovered entirely in two days, and since the menstruations became regular.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING SEPTEMBER, 1885.

Reports to the State Board of Health, Lansing, by observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of September (five weeks ending October 3, 1885), as follows, the diseases being arranged in the order of their greatest prevalence:

Diarrhœa, neuralgia, intermittent fever, rheumatism, consumption of lungs, bronchitis, tonsilitis, remittent fever, influenza, dysentery, cholera morbus, typho-malarial fever, cholera infantum, whooping-cough, erysipelas, inflammation of kidney, diphtheria, typhoid fever (enteric), inflammation of bowels, pheumonia, scarlet fever, inflammation of brain, cerebro-spinal meningitis, puerperal fever, membranous croup, and measles.

For the month of September, 1885, compared with the preceding month, the reports indicate that influenza, typho-malarial fever, bronchitis and neuralgia increased, and that cholera morbus, cholera infantum, and diarrhœa decreased in prevalence.

Compared with the average for the month of September in the seven years, 1879 to 1885, intermittent fever, remittent fever, dysentery, typho-malarial fever, cholera infantum, cholera morbus, diarrhœa, consumption of lungs, and typhoid fever were less prevalent in September, 1885.

For the month of September, 1885, compared with the average of corresponding months for the seven years, 1879 to 1885, the temperature was lower, the absolute humidity and the day ozone were about the same, and the relative humidity and the night ozone were more.

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of September, 1885, at fifty-six places, namely—Adrian, Alpena, Armada, Albion, Au Sable, Aurelius, Augusta, Bay City, Breedsville, Buell township, Benoni township, Campbell township, Coldwater, Columbiaville, Detroit, Edmore, Elbridge township, East Tawas, Escanaba, Flint, Flushing, Farmington, Fowlerville, Grand Rapids, Hartford, Handy township, Hart, Humboldt township, Highland township, Jackson, Kalamazoo, Lapeer, Lowell, Lavitt township, Mason, Marine City, Mount Pleasant, Muskegon, Monroe, Odessa township, Oregon township, Owosso, Pentwater, Peck, Pinconning, Quincy, Quincy township, Reese, Richmond, Rolland, Swartz Creek, Tawas City, Thornville, Weare township, West Bay City, Warsaw; scarlet fever at forty-two places—Akron, Albion, Bay City, Bloomingdale, Brockway Centre, Cadillac, Coldwater, Central Lake township, Detroit, East Saginaw, Edmore, Elk Rapids, Fairfield, Farmington, Grand Haven, Grand Rapids, Hart, Holloway, Holly, Howard City, Ingham township, Ionia, Jackson, Lawton, Leelanaw, Montague, Marquette, Mason, Monroe, Marine City, Memphis, Muskegon, New Troy, Northville, Owosso, Somerset township, South Haven, Thornville, Ubly, Unionville. Wayland, West Bay City; typhoid fever at forty-nine places—Almira, Adrian, Algonac, Armada, Bay City, Brighton, Brown City, Benton Harbor, Blanchard, Birmingham, Corunna, Coldwater, Constantine, Detroit, Dowagiac, East Saginaw, Edmore, Essexville, Elk Rapids, Escanaba, Grand Rapids, Grand Haven, Ionia, Ithaca, Jackson, Kalamazoo, Lansing, Litchfield, Mount Pleasant, Maple Valley township, Marine City, Mendon, Muskegon, Manistee, Northville, Owosso, Portland, Pontiac, Richmond, Romeo, Tawas City, Vernon township, Vermontville, Watervleit, West Bay City, Winfield township, Woods Corners, Wyandotte, Ypsilanti; measles at Corunna, Detroit, Grand Rapids, Mackinac, and South Haven.

HENRY B. BAKER, M. D., Secretary.

LANSING, October 8, 1885.

EDITORIAL PERISCOPE.

OUR RECIPROCAL DUTIES.

This number begins the eighth volume of THE PHYSICIAN AND SURGEON. Upon taking a retrospect, particularly of the past year, we, like all others who direct growing, prosperous and successful enterprises, feel pleased and thankful, but not content. We have reason to feel pleased, for our efforts to give to the profession the best that is practical and useful found in current medical literature, have been appreciated. We are thankful for the interest taken in the journal by its friends, manifested in the communications contributed, in the many names they have caused to be added to the list of subscribers, and in the good words spoken, and the kindly criticism given.

We are not satisfied nor content, because there is still felt an increasing obligation toward our readers to make THE PHYSICIAN AND SURGEON more valuable and more useful. In these indeavors we look for continued assistance and support at the hands of our friends. This co-operation is most necessary to accomplish the best results. Every progressive practitioner must have become, through his individual experience, the possessor of certain valuable knowledge, that has not been acquired by many brother practitioners. The medical journal is the avenue through which this knowledge can be exchanged and circulated, and every one in each hundred who thus contributes his treasure will receive ninety-nine in return. The busy practitioner cannot stop to elaborate fine pathological theories, but he can prove their worth, and reduce what good there is in theories to practical facts. He is not expected, either by analysis or synthesis, to produce a new antipyretic or antiseptic, but at his hands, such as are produced, are to be verified or proven worthless. The experience of no single individual is capable of establishing or destroying a truth in pathology or an error in therapeutics. It requires the combined testimony of thousands to accomplish this. We furnish the reader with all the rational advance that is made by the best and ablest investigators. Much of it is unproven. The practitioner's duty is to give it the crucial test. It is his verdict that makes the theory a law or a false conception. It is the results of the daily administration of a new drug as observed by him, that gives it a place among valuable agents, or casts it aside as a worthless compound. Reader, in this verdict your voice must be heard with the rest. What report have you to make on the last new remedy you have given a trial? More than a thousand who have used it, want to know. Speak through the point of your pen.

After every orthodox sermon the contribution basket is passed. It is now before you; drop something into it. Make a contribution of an item for the information of the profession and the amount of your renewed subscription for the comfort of the publisher.

RACLAGE OR CURETTING OF THE UTERUS.

The revival of this operation is only another instance of a completed cycle. A century ago Recamier discarded the use of the cautery, the method then employed to destroy uterine polypi and other fungoid growths of the uterus, and removed the diseased tissue by scraping it away. With a simply constructed instrument Recamier was able to successfully treat these diseases, and the operation became popular with many surgeons of this period. Unfortunately for this and other advanced surgical procedures of that day, they were brought forth during an epoch marked with the serious results that so frequently followed very slight surgical or accidental wounds; consequently raclage which was followed with such complications as peritonitis, cellulitis, abscess and septicæmia, was soon abandoned.

The knowledge and use of antiseptics have been the means of re-establishing many disused operations. The employment of cleanliness and germicides show that it was the conditions and not the operation that was responsible for the bad results. Scraping of the uterus has again become popular in America as well as in Europe.

Various forms of curettes are now used. It is usually necessary to have several instruments, the cutting borders of which are of different degrees of sharpness. The sharper ones can be used with safety at the commencement of an operation, but where considerable tissue has been removed and the uterine wall is thinned, those with blunt edges should be used. The operation is easy and rapid, and with any measure of care is free from danger. Primary or secondary hæmorrhage sufficient to demand attention is very rare.

The dressing and after-treatment of the scraped cavity is simple. Tampons charged with any other standard antiseptics is about all that is required. Iodoform is thought to be preferable to zinc, carbolic acid, or bi-chloride solutions. Dry iodoform dressing does not need removal more frequently than once every three or four days.

For the destruction of malignant growths that have not extended beyond the cervix, and the removal of polypi and fungoid degenerations, raclage will be found safe, rapid and efficient.

LEUCORRHŒAL DISCHARGES FROM ROLLER-SKATING.

Dr. Von Klein sends the following observations to the *Boston Meidcal and Surgical Journal:*

Mrs. L. consulted me about two of her little girls, Anna, aged ten, and Eva, aged twelve years. The mother called my attention to a leucorrhœal discharge which she lately observed on their clothing. An examination of the parts verified the mother's statement. I told her I could not account for it, as I had already seen it in children younger than hers, but the lady, who is of rather extraordinary intelligence, advanced a theory that their recent excessive indulgence in roller-skating brought on their affliction. Certainly, I partly coincided with her sentiment. When she returned home and spoke to other ladies about the matter, it brought out the fact that there were many others afflicted in the same way. In fact, I examined nine children in forty-eight hours, whom I found affected with leucorrhœa. These children were all roller-skaters, from nine to sixteen years of age. Their mothers steadfastly maintained that they were not afflicted before they commenced the so-called exercise. I have reason to believe that the practice of roller-skating exercise is injurious to young females by reason of excessive movements of the lower extremities, especially of the pelvic organs, including the walls of the vagina. I trust the profession everywhere will record cases of this nature that may come under their observation, which will, I am sure, reveal many valuable pathological changes caused by the exercise of roller-skating.

CONDENSATIONS.

THE anti-vaccination league, of New York City will incorporate itself as the American Anti-vaccination Society. Henry Bergh is identified with it.

DO NOT neglect to instruct the young mother to give the baby a drink of water once or twice a day. The nursing baby cries as often from thirst as from hunger.

AT the recent meeting of the American Public Health Association, Dr. H. P. Wolcott, of Cambridge, Massachusetts, was elected President, and Dr. Coverton, the President of the Ontario Board of Health, First Vice-President. The next annual meeting will be held at Toronto, Canada.

OFFICIAL NOMENCLATURE OF DISEASE.—Since the 1st day of January the revised edition of 1885 of the "Provisional Nomenclature of Diseases of the Royal College of Surgeons, London," will be used as the "Official Nomenclature for the United States Marine Hospital Service," instead of the former editions.

LAPARO-ELYTROTOMY has been performed nine times in New York and Brooklyn, saving six women and five children. Eleven Cæsarean operations, saving but one life; the prognosis was "unfavorable" in ten of the eleven. In the Laparo-Elytrotomies four were "favorable," and five "unfavorable" for the operation; all of the favorable cases recovered.

COCA AND ITS CONGENERS.—Dr. O. M. Moore says it has been estimated that coca is used by ten millions of the human race; betel nut by one hundred millions; chickory by forty millions; coffee by one hundred millions; three hundred millions eat or smoke haschisch; four hundred millions use opium; five hundred millions use tea; and all known people of the earth are addicted to tobacco.

MORPHINE VERSUS HANGING.—F. H. Gerrish advocates the hypodermic adminstration of morphine instead of hanging as a means of inflicting capital punishment, claiming as advantages for this mode of punishment the following: (1) Its certainty; (2) Its painlessness; (3) Its freedom from the chance of horrible displays; (4) The reduction of dramatic element to a minimum; (5) Its inexpensiveness.

THAT conscientious and able surgeon, Dr. Alex. B. Mott, of New York, is not in favor of antiseptic remedies. At one of his clinics held at the Bellevue Hospital Medical College, he was asked to explain his position. The doctor said: "I can see no use in antiseptic surgical solutions. I think that no evidence has been submitted to substantiate the theory, and until it has been submitted I decline to accept it."

MEDICAL journalistic enterprises recently launched that are to sink or swim: The *Ogle County Medical Quarterly*, edited by W. T. Speaker, M. D.; published by the Ogle County Medical Association. The *Medical and Surgical Herald*, edited and published monthly at Joplin, Missouri, by J. C. Petit, M. D. The *Physician's Magizine*, a quarterly published by Foote & Swift, Philadelphia. The *Cleveland Medical Gazette*, monthly, A. R. Baker, M. D., editor; S. W. Kelley, M. D., associate editor.

AMERICAN PRACTITIONER AND NEWS is the name given a biweekly journal, resulting from the consolidation of the *Louisville Medical News* and the *American Practitioner*. The new journal is edited by Drs. H. A. Cottell and D. W. Yandell, former editors of the *News* and the *Practitioner*. The good work that was done by these gentlemen in their former separate spheres will be elevated and increased by their united forces. The new combination has our best wishes.

"ELECTRICITY in some form is a specific cure for extra-uterine pregnancy," is regarded by Dr. Henry G. Landis as an accomplished and proven fact. On this subject he contributes an article to the *American Journal of Medical Sciences* which he concludes as follows: (1) In using the faradic current in extra-uterine pregnancy, the applications should be protracted for one hour, if the patient can bear it; (2) The current should be repeatedly applied, in order that the vitality of the fœtus may be finally exhausted; (3) The current should for at least one sitting be used in great strength; (4) The current probably acts not only by destroying the fœtus, but by its action on the placental circulation, an additional reason for a long application.

Resuscitation from Chloroform Poisoning.—Dr. R. M. Murray suggests a new method of resuscitating persons whose respiration has been suspended while inhaling chloroform. He thinks that artificial respiration as ordinarily conducted, rather promotes the absorption of a new quantum of the vapor, the air remaining in the lungs being saturated with chloroform, and he proposes to suck the air out of the lungs and allow them to expand by their natural resiliency. Many and repeated experiments upon animals evidence the value of his suggestion.

A Curious Mistake.—The following anecdote is related as an actual occurrence: A young man fresh from college, whence he came with honors and medals, was sent by his father, a practitioner of fifty years' standing, to attend a woman in labor. On making a digital examination, he found the os uteri undilated. After waiting an hour, there being no improvement, he applied belladonna ointment, and endeavored to make forcible dilatation. At the end of another hour there was still no dilatation, and being alarmed he went to his father for assistance, but before they returned the child was born. On examination the father found that the child's anus was red and patulous, and was liberally besmeared with belladonna ointment. The young practitioner had met with a breech presentation and had mistaken the child's anus for an undilated os uteri.

Bovine Virus.—From what Pasteur has shown of some other infections, it cannot be doubted, that humanized lymph is attenuated by transmission. Added to this diminished infection, it is, at least, probable that human virus may be the carrier of other contagium. While critical investigation has failed to find this to be true in many of the alleged instances, there is a very positive and wide-spread popular belief, that syphilis can be transmitted through vaccination. The avoidance of these uncertainties and risks is secured by using the original bovine virus. For this reason there has been a growing demand for non-humanized lymph, and "vaccine farms" are becoming more numerous. These establishments need to be conducted with the greatest care and intelligence. Messrs. John Wyeth & Brother, of Philadelphia, have assumed this responsible undertaking. From the Belgian Bureau they have obtained lymph that has the highest reputation of any in Europe. The buildings, animals, apparatus and product of their establishment are open to the inspection of all. The assurance of these gentlemen that it is their "anxious desire to produce lymph of the highest quality," can be accepted as a sufficient guarantee that the bovine virus of their establishment will be the best that can be produced.

NEW PUBLICATIONS.

POSTMORTEM EXAMINATIONS, WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE. By Profes-or Rudolph Virchow, of the Berlin Charite Hospital. Translated by T. P. Smith, M D., Member of Royal College of Surgeons of England. With Additional Notes and New Plates from the fourth German edition. 12mo: one hundred and thirty-eight pages. Cloth, $1.00. Philadelphia: P. Blakiston, Son & Company, 1885.

The father of pathological anatomy should be of all persons, the one privileged and qualified to tell the profession how to make a postmortem examination. In his little work Professor Virchow indirectly informs the reader that he began the scientific and methodical study of making postmortem examinations at the Charite in 1844. For these forty-one years he has aimed to make his the best and most correct methods. If in his style and language there is evidence of pride and a feeling of ownership, when he criticises, and explains the German regulations for guiding the performing and drawing up reports of autopsies, who could be more justified. The method of Professor Virchow is especially adapted for medico-legal examination, consequently it is thorough and systematic; and no procedure has been omitted which could aid in the possible discovery of the cause of death. To illustrate his method, three interesting cases are given, in which the autopsy were made by himself. They serve as examples of the manner in which postmortem examinations for medico-legal purposes should be conducted. Three hours are considered sufficient time for even complicated cases. The practitioner may at any time be called upon to make such examinations and with the contents of this little book to guide him the results of his labor will be far more satisfactory. For scientific investigations the method is the rational and correct one, and is equally valuable for that purpose.

MILK ANALYSIS AND INFANT FEEDING. A Practical treaties on the examination of Human and Cow's Milk, Cream, Condensed Milk, etc., and Directions as to the Diet of Young Infants. By Arthur V. Meigs, M. D, Physician to the Pennsylvania Hospital and to the Children's Hospital; Fellow of the College of Physicians, of Philadelphia. 12mo: one hundred and two pages. Philadelphia: P. Blakiston, Son & Company, 1885.

The author's motives for preparing this little work for the public and the profession is in the highest degree commendable. Confronted with figures that show that nearly one-half the recorded deaths which occurred during the year 1880, were of children under five years of age, it is evident that many infants that now die might be saved; and when it is further considered that the great majority of deaths of infants and children is from disorders of digestion and assimilation, it is truthfully stated in the author's introduction that, "surely there is a crying need for the dissemination of knowledge which may lessen the mortality among young infants.

Dr. Meigs' method for separating the fat, sugar and casein is original, and is rapid and practical of application. His conclusions regarding the amounts of sugar and casein in human milk are at variance with those of other investigations. He shows that the amount of casein is nearly constant and not nearly as large as found by others. That instead of there being from three to seven per cent. as commonly taught there is only one per cent. From the above the author reasons that, justice has never been done to the many trials to produce a food which should be like what nature has provided for the infant. With the many data now at hand, he regards, it comparatively easy to construct a food which at least shall be more nearly what is needed than any previous one.

In the conclusion, explicit directions are given for preparing, and instruction relative to the amount of food for children at various ages. In every portion of his little work, the author exhibits an earnestness that must bring conviction to all that he has carefully investigated the subject, and that his labors have been actuated by the highest motives.

FOWNES' MANUAL OF CHEMISTRY, THEORETICAL AND PRACTICAL. A new American from the twelfth English edition, embodying Watts' "Physical and Inorganic Chemistry," with one hundred and sixty-eight illustrations. 12mo: one thousand and fifty-six pages. Cloth, $2.75; leather, $3.25. Philadelphia: Lea Brothers & Company, 1885.

Several of the later successive editions of "Fownes' Manual of Chemistry" being edited by Mr. Watts, were more representative of the editor's than of the author's views. This of necessity grew out of the many changes which have been made in the science of chemistry, since the introduction of the new nomenclature, and the amount of new material that has been constantly added to the rapidly growing science. New editions were issued at short intervals, and to keep up with the great strides made in chemistry, all the parts were changed and enlarged until the work is double its former size. This work in the main was done by Mr. Watts, and, we learn from the American publishers' preface, that, "Under these circumstances, Mr. Watts very properly contemplated the issue of a work of his own, based upon that of Professor Fownes, but his untimely death prevented the full accomplishment of the project. A large portion of the work, however, was completed by the issue of a volume on "Physical and Inorganic Chemistry." The work possesses great merit, and being designed as a book of reference as well as a student's text-book, it has a degree of usefulness that its publication could not conveniently be omitted, and the Messrs. Lea Brothers & Company have very properly deemed it a duty to give to those interested the latest thoughts of that renowned scientist. Mr. Watts' uncompleted work has, therefore, been reprinted with Professor Fownes' Organic Chemistry. The work in its latest form contains a vast fund of valuable information.

A GUIDE TO THE STUDY OF EAR DISEASES. By P. McBride, M. D., Fellow of the Royal College of Physicians, Edinburgh; Fellow of the Royal Society of Edinburgh; Surgeon to the Department for Diseases of the Ear and Throat in the Royal Infirmary of Edinburgh; Surgeon to the Edinburgh Ear and Throat Dispensary. 8mo: one hundred and ninety-eight pages. Cloth, $2.75. J. H. Vail & Company, New York.

An examination of this work readily convinces the reader that the author attained the object intended, that is, to produce a work to meet the "requirements of the student and of the general practitioner who has not had the advantage of studying otology under the guidance of a teacher." The colored lithographs representing dissections and morbid conditions are well executed, and must serve as useful guides in instrumentation, both for diagnosis and treatment.

In that portion of the work devoted to considering "Disturbance of the Nervous System Resulting from Ear Disease," many points of great value to the general practitioner are clearly and forcibly portrayed.

The masterly manner in which the author states his views, the recent clinical and pathological knowledge contained, the plain classification of the diseases, combine to make it a work which we can earnestly recommend, and which insures a warm acceptance from the profession.

APPLIED MEDICAL CHEMISTRY. A Manual for Students and Practitioners of Medicine. By Lawrence Wolff, M. D, Demonstrator of Chemistry in Jefferson Medical College; Member of the German Chemical Society, the Philadelphia County Medical Society, the Philadelphia College of Pharmacy, etc. 8mo: one-hundred and seventy-four pages. Cloth, $1.50. Philadelphia: P. Blakiston, Son & Company, 1885.

Dr. Wolff appreciates the impractical manner in which chemistry is too frequently taught to medical students; and the difficulty experienced by them as practitioners in trying to make practical applications of their chemical knowledge. It has been the object of the author, therefore, to collate from the principles of chemistry such information as will be found most serviceable to the physician and to present it in as simple and concise a manner as accuracy and clearness will admit. The author has been eminently successful in his endeavors, and gives to the student and practitioner a work that will enable him to make a more frequent use of his chemical knowledge.

THE MEDICAL NEWS VISITING LIST. Wallet form, handsome red seal binding, tucks, pocket, pencil and rubber, $1.00. With patent thumb-letter index for rapid use, $1.25. Lea Brothers & Co.

This pocket book is a "thing of beauty," and from the amount of useful memoranda for physicians which it contains, it is in a high degree a thing of utility. The *News* Visiting List contains a number of desirable features; the nature of many can be obtained from the following table of contents:

How to keep accounts; how to keep the visiting list; table to find day of confinement; signs of pregnancy; signs of dentition; weights and measures (ordinary and metric); comparative scales; examination of urine; disinfectants; table of eruptive fevers; some remedies not in general use; incompatibles; artificial respiration; poisons and antidotes; table of doses; therapeutic table; ligation of arteries; daily record of practice; clinical record; consultation practice; obstetric engagements; obstetric practice; vaccinations; deaths; addresses of patients; addresses of nurses; cash account; general memoranda.

The comparative scales enables one to see at a glance the exact equivalent of ordinary weights and measures in those of the metric system and *vice versa.* The therapeutic table gives in alphabetical order about two hundred and fifty diseases, and under each disease such drugs, remedies and preparations that have been found most beneficial.

THE PHYSICIAN'S VISITING LIST (LINDSAY & BLAKISTON'S) FOR 1886. Thirty-fifth year of its Publication. Philadelphia: P. Blakiston, Son & Co.

The Lindsay & Blakiston Visiting List has been so long before the profession, and so favorably received by it, that a description of the book is needless. Each year, however, it contains some new features. The following is the contents for 1886: Almanac; table of signs; Marshall Hall's ready method in asphyxia; poisons and antidotes; the metric or French decimal system of weights and measures; posological table, rewritten in accordance with the new (sixth) revision of the United States pharmacopœia; a new complete table for calculating the period of utero-gestation; list of new remedies for 1885–6; Sylvester's method for artificial respiration; diagram of the chest; blank leaves for visiting list; blank leaves for monthly memoranda; blank leaves for addresses of patients and others; blank leaves for addresses of nurses, their references, etc.; blank leaves for accounts asked for; blank leaves for memoranda of wants; blank leaves for obstetric engagements; blank leaves for vaccination engagements; blank leaves for record of births; blank leaves for record of deaths; blank leaves, for general memoranda, etc. The "Dose Table" is given in the metric as well as the apothecaries's weights and measures. This table is compiled and thoroughly revised and corrected, according to the new pharmacopœial standards.

The "Memoranda on New Remedies," edited by Dr. Samuel O. L. Potter, is concise, and embraces many new remedies, giving their properties, physiological action, dose and uses.

MEDICAL CHEMISTRY: A TEXT-BOOK FOR MEDICAL AND PHARMACEUTICAL STUDENTS AND PRACTITIONERS. By Elias H Bartley, M. D., Adjunct Professor of Chemistry, and Lecturer on Diseases of Children in Long Island College Hospital; Chief Chemist to the Department of Health, City of Brooklyn, New York; Chemist to the New York State Dairy Commission; Inspector New York State Board of Health; President of the American Society of Public Analysts; Member of the American Chemical Society; Member of the American Society for Advancement of Science. With forty illustrations. 12mo: three hundred and seventy-three pages. Cloth, $2.50. Philadelphia: P. Blakiston, Son & Co., 1885.

The author has prepared this book especially for medical, pharmaceutical and dental students, as a text-book while attending lectures; and for the practitioner as a book of ready reference. Its contents are not new, but it comes enriched in its arrangement and selection, the result of twelve years experience as a teacher of chemistry. The object of the author has been to strike the mean between the extremes of voluminous obscurity and the ambiguity of brevity. In this he has been successful. The description of individual substances is brief, but the general principles and the relations of the facts of chemistry to medicine are clearly and fully stated.

BOOKS AND PAMPHLETS RECEIVED.

RECTAL MEDICATION. By D. W. Cathell, M. D. Reprinted from the "Transactions of the Medical and Chirurgical Faculty of Maryland," 1885.

NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH. Reprinted from the "Seventh Annual Report of the Illinois State B ard of Health." 1885.

A MANUAL OF OPERATIVE SURGERY. By Lewis A. Stimson, B. A., M. D., Surgeon to the Presbyterian and Bellevue Hospitals; Professor of Clinical Surgery in the Medical Faculty of the University of the City of New York; Corresponding Member of the Société de Chirurgie, of Paris. Second edition, with three hundred and forty-two illustrations. 12mo: five hundred and six pages. Cloth, $2.50. Philadelphia: Lea Brothers & Company, 1885.

A MANUAL OF MICROSCOPICAL TECHNOLOGY FOR USE IN THE INVESTIGATIONS OF MEDICINE AND PATHOLOGICAL ANATOMY. By Dr. Carl Friedlænder, Lecturer on Pathological Anatomy in the University of Berlin. Translated with the express permission of the Author, from the second enlarged and corrected edition, by Stephen Yates Howell, M. A., M. D., Buffalo, New York. Royal 12mo: two hundred and forty-nine pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1885.

ABNORMAL POSITIONS OF THE HEAD. WHAT DO THEY INDICATE? By Edward Borck, A. M., M. D., Professor of Surgery, etc. A Clinical Lecture delivered before his Private Class, with a case of Dislocation of Cervical Vertebræ. Reprinted from the *Medical and Surgical Reporter*. Philadelphia. January 31, 1885.

ESSENTIALS OF VACCINATION: A COMPILATION OF FACTS RELATING TO VACCINE INOCULATION AND ITS INFLUENCE IN THE PREVENTION OF SMALL-POX. By W. A. Hardaway, M. D., Professor of Diseases of the Skin in the Post-Graduate Faculty of the Missouri Medical College, Saint Louis; Member of the American Dermatological Association; Formerly one of the Vaccine Physicians to the City of Saint Louis. 12mo: one hundred and forty-six pages. Saint Louis: J. H. Chambers & Company, 1886.

ELECTRICITY IN MEDICINE: PRACTICAL SUGGESTIONS RESPECTING THE VARIETIES OF ELECTRIC CURRENTS AND THE USES OF ELECTRICITY IN MEDICINE, WITH HINTS RELATING TO THE SELECTION AND CURE OF ELECTRICAL APPARATUS. By Ambrose L. Ranney, M. D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post Graduate Medical College and Hospital; Professor of Nervous and Mental Diseases in the Medical Department of the University of Vermont; Fellow of the New York Academy of Medicine; Member of the Neurological Society of New York, of the New York County Medical Society, etc. New York: D. Appleton & Company, 1885.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By the late Charles Hilton Fagge, M. D., F. R. C. P., Physician to and Lecturer on Pathology at Guy's Hospital; Examiner in Medicine in the University of London; Senior Physician to the Evelina Hospital for Sick Children, etc. Including a "Section on Cutaneous Diseases," by P. H. Pye-Smith, M. D., F. R C. S., Lecturer on Medicine at Guy's Hospital; "Chapters on Cardiac Diseases," by Samuel Wilkes, M. D., F. R. S., Physician to Guy's Hospital, and to the Royal Hospital for Children, London, and "Complete Indexes," by Robert Edmund Carrington, M. D., Assistant Physician to Guy's Hospital, London. Volume I. 8mo: one thousand and forty-one pages. Philadelphia: P. Blakiston, Son & Company, 1885.

STUDENT'S AIDS SERIES. Aids to Surgery by George Brown, M. R. C. S., L. S. A., Late Demonstrator of Anatomy at Westminster Hospital Medical School; Gold Medalist (1873) Charing Cross Hospital; Author of "Aids to Anatomy," etc. Aids to Obstetrics (Double Part) by Samuel Nall, B. A., M. B., Cantab., M. R. C. P., London; First Class Natural Science Honors, Cambridge; Scholar in Natural Science, Saint Bartholomew's Hospital; Casualty Physician, Assistant Demonstrator of Physiology, and late Resident Obstetric Assistant, Saint Bartholomew's Hospital, etc., etc. Aids to Medicine, Part III (Double Part): Diseases of the Brain and its Membranes, of the Nervous System, of the Spinal Cord, and of the Ear, by C. E. Armand Semple, B. A., M. B., Cantab., L. S. A., M. R. C. P., London; Physician to the Northeastern Hospital for Children, Hackney; Physician to the Royal Society of Musicians; Professor of Vocal and Aural Physiology in and Examiner in Elementary Acoustics at Trinity College, London; Late Senior Examiner in Arts at Apothecaries' Hall; for many years Clinical Assistant in the Throat Department of the London Hospital; Author of "The Student's Manual of Diseases of Children," "Aids to Chemistry," "Aids to Pharmacy," etc. New York and London: G. P. Putnam's Sons.

MEDICAL DIGEST.

ON THE TREATMENT OF HÆMORRHOIDS BY INJECTIONS OF CARBOLIC ACID.

The following is Dr. Kelsey's method as published in the *New York Medical Journal:*

The injection of hæmorrhoids with carbolic acid, though apparently a simple and trivial affair, is to be regarded in the light of a surgical operation, and should not be undertaken by the practitioner until he has surrounded himself and the patients with all the safeguards at his command.

There are two accidents which may happen in these cases, and for which the operator must be on his guard. One is undue ulceration, the other is abscess. Ulceration is the result of using a strong solution, which causes a distinct slough of the tumor injected. The resulting ulcer is seldom larger than a silver quarter, and I have never known it to give rise to serious trouble or to refuse to heal kindly with proper local treatment, When it occurs it is well to cease further injections and to deal exclusively with this condition until it is healed. Applications of nitrate of silver, iodoform, calomel in powder, etc., are usually sufficient to induce cicatrization. The ulcer is not generally painful, the discharge is about the only symptom of which the patient complains, and the complication is not therefore to be considered as a serious one.

It will at once be asked what strength of solution is capable of producing a slough? I cannot say. The worst one I ever produced came from an injection of a fifteen per cent. solution, and I have deliberately tried to produce one in a large hæmorrhoid by the use of undiluted carbolic acid, and failed to get anything more than a hard tumor of the size of the end of the thumb around the injection. The individuality of the patient seems to exert a decided influence, and, given a certain standard strength of solution—say thirty-three per cent.—it is impossible to predict beforehand in how many patients it will produce a slough and in how many it will produce a simple induration. Of course, as a general rule, it can be stated that weak solutions are less apt to produce sloughs than the stronger ones, but beyond this my experience does not yet enable me to go, and I do not consider the question as one of very great importance; for these ulcers which result from a slough heal fully as well as the wounds which follow either the ligature or the clamp, and it is with these two methods of operating that I wish the treatment by carbolic acid to be compared. I hold it to be a surgical procedure, comparable in its results with either of these, and to be judged on its merits as compared with them. I believe that it possesses many advantages over either of them.

The second complication is abscess, and these are of two kinds—one trivial, the other serious. In two or three cases I have seen the following chain of events: An injection of medium strength being made, the patient has returned after a few days complaining of a painful swelling. An examination has revealed a tumor of the size of the end of the thumb situated just at the margin of the anus, covered with skin on the outside and mucous membrane on the inside and containing pus. If left to itself, such an abscess will often discharge on both the mucous and cutaneous aspects, the two openings being free and close to each other, and the cavity will close spontaneously. An incision on the cutaneous surface, though it will relieve pain and evacuate pus, may yet not prevent a spontaneous opening on the mucous surface. When the two openings have formed, the result is a subcutaneous fistula at the verge of the anus, but one which in its results is a very trivial affair, and which, if it does not heal spontaneously, can easily be laid open in the surgeon's office, and dressed with lint from the bottom.

The other abscess is a much more serious matter, and I have no doubt that it can be produced, and in some cases has been, by an improper use of the acid. I refer to a deep abscess of the cellular tissue in the ischio-rectal fossa. Such cases have been described and are quoted as the chief objection to this method of treatment. They are due to the injection of too strong a solution, or of the undiluted acid, either into a small tumor or into the cellular tissue entirely beneath the tumor. The pure acid may be inserted *into* a large hæmorrhoid and cause a limited slough which will result in a perfect cure. The same injection given *below* a small tumor is pretty likely to cause a considerable cellulitis. It is in this way that I explain this unfortunate accident, which is rare at the most, is a result of the improper employment of the means at the operator's command, and ought not to be considered a valid objection to the plan of treatment.

I have said that the injection of hæmorrhoids reached the dignity of a surgical operation, and should be judged in comparison with other operations for accomplishing the same end. This will almost certainly be found to be the case in any extended experience. The suffering is not always trifling; the nervous strain of submitting to any plan of treatment is not inconsiderable; the affection itself is sometimes a serious one, and, as I have already said, the operator should surround himself with all the safeguards within his reach. During the past summer I was called upon to treat an old gentleman, the mayor of a small town in Ohio, living in a high, cool, country region, but much depressed with business losses and worry. He came to New York in the middle of the hot season and submitted to treatment. The hæmorrhoids were the worst which up to that time I had ever treated by this method. The sphincter was much relaxed; the tumors had been down for twenty-five years without being replaced, and were very large and vascular. There were three distinct masses, each of about the size of a hen's egg. The case was not an attractive one, considering the age and condition of the patient and the hot weather, but I undertook it. Into the largest of the three tumors I injected five drops of a fifty per cent. solution. It was followed by a good deal of pain and loss of sleep for two nights, with some constitutional disturbance. On the third day, the pain of the first injection having somewhat subsided, I injected five drops of pure acid into the second tumor, and had much less trouble than with the fifty per cent. solution in the former case. After three days more I again injected the same amount of pure acid into the third tumor. Both of these last applications caused a distinct slough with resulting ulcerated surface and free discharge of bloody matter. After a few days more I returned to the first tumor, which had not sloughed but simply become indurated, and injected five drops of pure acid into that. The applications were all made within the space of two weeks. During this period the patient allowed his bowels to become constipated, and I had to clean them out with repeated copious enemata. There was at one time some vesical irritation and decrease in the amount of urine, whether from direct absorption of carbolic acid or from reflex irritation I do not know, and at the end of the treatment the patient was considerably reduced in strength —so much so that I put him upon the most nourishing regimen with bark and whisky. Just as he seemed on the point of rallying I discovered a small abscess in the perinæum, which was opened, and healed kindly, having no connection with the rectum. After recovering from this and gaining a considerable degree of health he went to his home in Ohio, and was immediately brought to bed with a second, larger abscess on the buttock. From this he also made a good recovery, and has ever since been perfectly well, the hæmorrhoids causing no disturbance whatever.

This was a bad case, and for that reason I am willing to consider it as a test one. The hæmorrhoids were the largest I have ever seen operated upon by this or any other operation. The patient was seventy years old, and, though free from organic disease, was not in good general condition. The piles were cured by four injections of carbolic acid. It is true he suffered pain, he had some vesical irritation, and he had two abscesses due to his general enfeebled condition but having no connection with the rectum. Taking the case as it stands, the operation will compare very favorably with either Allingham's or Smith's. The man was not confined to his bed at any time, and, moreover, would not submit to either of the other operations under any circumstances. Being one of the *worst* cases I have ever had with carbolic acid, I am still willing to place it in comparison with the *average* case of operation by the ligature, looking at both in the light of surgical procedures of considerable magnitude and importance.

The objections to and possible complications of this method of treatment are, therefore, easily enumerated. They are, (1) pain; (2) vesical irritation where strong solutions are used; (3) marginal abscess; (4) deep cellulitis. *In the majority of cases the patient will escape them all.* Deep cellulitis I should suppose to be about as frequent after this operation as pyæmia after the ligature. Marginal abscesses may occur at any time, but are easily treated. The vesical symptoms never follow any but the more powerful injections, and the pain is very variable and cannot be predicted from the strength of the solution used. I have injected five minims of pure acid into a large tumor without the patient either knowing when it was done or appreciating the slighest sensation afterward. I have injected a fifteen per cent. solution into a small tumor and caused considerable suffering. Speaking in a general way, I do not expect much pain from a weak solution, but, nevertheless, it is sometimes met with, and I have ceased to predict its presence or absence. If it comes with any solution I am not surprised, and if it does not come I am pleased. It is, however, an exception to meet with it to any marked degree.

As far as I have been able to reduce this treatment to a matter of rule the results are as follows:

(1) Use only the purest crystallized carbolic acid, the purest glycerin, and distilled water in the preparation of the solutions. Each, when prepared, should be perfectly colorless and clear, the acid being in perfect solution. The glycerin is added to the solution of carbolic acid in water in just sufficient quantity to make a clear fluid, and the amount is not important. As soon as a solution begins to assume a yellowish tint it should be replaced by a fresh one.

(2) Use only the finest and most perfect hypodermic needles and a perfectly working, clean syringe with side-handles. After each injection when the syringe is put away, clean it thoroughly, to be ready for the next time.

(3) The treatment may be applied to every variety of internal hæmorrhoids, no matter what their size. It is not applicable to external hæmorrhoids, either of the cutaneous or the vascular variety, both of which may be treated by better means.

(4) Before making an application give an enema of hot water, and let the patient strain the tumors as much into view as possible. Then select the largest and deposit five drops of the solution as near the center of the tumor as possible, taking care not to go too deep so as to perforate the wall of the rectum and inject the surrounding cellular tissue. The needle should be entered at the most prominent point of the tumor. If the hæmorrhoid does not protrude from the anus, a tenaculum

may be used to draw it into view. After the injection has been made the parts should be replaced, and the patient kept under observation for a few minutes to see that there is no unusual pain. The injection will cause some immediate smarting if it is made near the verge of the anus; if made above the external sphincter, the patient may not feel the puncture or the injection for several minutes, when a sense of pressure and smarting will be appreciated. In some cases no pain will be felt for half an hour, but then there will be considerable soreness, subsiding after a few hours. If it increases, instead of disappearing, and on the following day there is considerable suffering, which may not perhaps be sufficient to keep the patient on his back, but is still enough to make him decidedly uncomfortable, it is a pretty good indication that a slough is about to form. For the reason that it is impossible to tell absolutely what the effect of an injection is to be until at least twenty-four hours have passed, it is better to make but one at a visit and to wait till the full effect of each one is seen before making another. If on the second day there is no pain or soreness, another tumor may be attacked.

(5) The strength of the solution must be regulated by the nature of the case, and in my own practice varies from five per cent. to pure crystallized acid. In a large, vascular, prolapsing tumor, which is well defined and somewhat pedunculated, five drops of pure acid may be used with the expectation of producing a circumscribed slough which will result in a radical cure. A thirty-three per cent. solution under the same conditions will probably produce consolidation and shrinkage without a slough, but the injections will have to be repeated several times. A small tumor which protrudes but slightly, is not pedunculated, and can be seen and felt as a mere prominence on the mucous membrane, may be cured by a single injection of a five per cent. solution, which will cause it to become hard and decidedly reduce its size, while an injection of a fifty per cent. solution might make considerable trouble, the remedy being too powerful for the disease. Guided by this principle, some experience will soon determine the choice of the solution. There is no arbitrary rule which can be applied to every case. As in any other surgical operation, some cases will be more satisfactory than others, and an occasional accident must be expected; but, on the whole, it is the best method of treatment yet devised.

CONTRIBUTION TO THE KNOWLEDGE OF PEPSIN.

Sundberg has hit upon a method for preparing pepsin which gives better results than those obtained by Brücke's method.

Calves' stomachs are taken, the pyloric portion removed and the remainder of the mucous membrane carefully washed with water. The superficial portion of the membrane is then scraped off with a watch glass, and the substance thus obtained is ground up with a weighed quantity of salt. Enough water is added to this to make a saturated solution of salt. After standing twenty-four to seventy-two hours this was filtered and the Na Cl removed by dialysis. The dialyzed liquid contained very little albumin and had a very powerful peptic action. It was further purified by being kept at 40° centigrade for some time to destroy the rennet ferment, and was then allowed to digest itself for one or two weeks, until all the albumin was converted into peptone. To this liquid chloride of calcium and acid sodium phosphate were added, and the liquid made weakly alkaline by ammonia; the resulting precipitate of calcium phosphate carried down the pepsin with it. The precipitate was collected in a filter, thoroughly washed with water and dissolved in as small a quantity as possible of five per cent. HCl. This solution was then thoroughly dialyzed. The liquor obtained finally, when brought to the proper degree of acidity, digested very actively. With tannic acid, mercuric chloride, iodine, platinum chloride, and lead acetate it gave no albumin reaction whatever. The only reagent that affected it was absolute alcohol. When the pepsin solution was added to five or six times its volume of alcohol a slight white precipitate occurred. This, when burnt on platinum foil, gave the well known odor of burning nitrogenous matter. The author concludes, that while pepsin is a nitrogenous body, it is not albuminous.—*American Naturalist.*

NOTES ON TREATMENT.

Dyspepsia.—Cause of Functional Indigestion.—(1) Eating too rapidly. (2) Drinking too much water at meal time. (3) Improper food. (4) Want of exercise. (5) Too much tea and coffee. (6) Too much tobacco. *Treatment.*—Under-done meats and but little bread. No sweets. Saccharated pepsin, five grains, at each meal. The mineral acids before meals, as muriatic, nitro-muriatic, or phosphoric. Certain bitters, as nux vomica and strychnine combined with gentian or calumba. An alkali a few hours after meals when there is great acidity, but should not be used too frequently.

Dilatation of the Stomach.—Treatment.—Dry, solid food; under-done meats; no milk. Carbolic acid to allay fermentation. Wash out stomach occasionally. Strychnia, hypodermically or by mouth.

Chronic Gastritis.—Treatment.—Cause to be removed. A scanty supply of food. Pepsin at each meal, five grains. Milk, with a little meat, may be taken as food. Oxide of silver, one-half grain a dose, will be found of value. Bismuth is useful. Avoid tonics, but use the mineral waters to keep portal system drained.

Gastric Pain (*Gastralgia*).—*Treatment.*—Diet of little importance. Stimulus at meals in small quantities. Morphia relieves at once. but use it carefully. (1) Bismuth, with a little opium. (2) Nitro-muriatic acid, two to three drops, diluted, or—

℞.	Morph. sulph	gr. $\frac{1}{32}$.
	Acid. carbolici	gtt. j.
	Aq. menth. pip	ad. f. ʒj.

M. Sig. *Ter die.*

Fowler's solution, beginning with one drop, and increase to five drops, *ter die.*

Hematuria.—Treat the cause as well as the symptoms, though the treatment of both is generally the same. (1) Gallic acid, in doses of ten to twenty grains, repeated every hour or two. (2) Sulphuric acid, alone or with gallic acid, unless contra-indicated by scarlet fever, etc. (3) Fluid extract of ergot, twenty drops, increased to one fluid drachm. All three of the above are reliable remedies.

Medical Treatment of Diabetes Mellitus.—Do not use bromide of potassium; it is valueless. Quinine is of no use. Opium is of value, and is one of the best agents, but care should be taken in its use. Codeia, one-fourth to one-half, *ter die*, is much used in France. Trousseau's plan, with strychnia, is very useful. The salicylate of sodium, ten to twenty-five grains, *ter die*, in compound spirits of lavender and water, is Professor Da Costa's favorite. Ergot is useful, but less so than the others. The alkaline plan, which is quite popular in Europe, is of value. Aloes or aloin should be used for constipation that may arise.

Diabetes Insipidus.—*Medical Treatment.* —(1) A course of iron, for its tonic effects. (2) Strychnia is very useful. (3) Ergot gives the best results; absolute cures follow its use; one-half to one drachm of the fluid extract should be given *ter die.*—Professor Da Costa in *College and Clinical Record.*

TREATMENT OF BROMIDROSIS OF THE FEET.

The following method of Hebra, and several modifications, are contributed by J. S. Steward, L. R. C. P., in the *Edinburgh Medical Journal*, and are considered by him sure and permanent in their relief:

Few affections of the skin are more disgusting or more difficult to treat successfully, by the ordinary methods, than fœtid sweating of the feet, with or without excessive secretion. The thickened skin over the heel and anterior ends of the matatarsal bones seems to afford a very secure and ineradicable nidus for the as yet undifferentiated enzyme which induces fermentation with its fœtid products there. One form of treatment seems to be invariably successful, and therefore deserves to be better known, namely, that devised by Hebra, which, he says, never fails, and recommends to be used in all severe cases. Hebra employed the following ointment:

℞. Olei lini.,
Emplastri plumbi liquefacti.......... āā.
M. Ft. ung.

This he directed to be spread thickly over a piece of linen large enough to cover the sole and sides of each foot, both feet in the first place, to be carefully washed and dried. Pieces of linen rag well covered with the ointment he directed to be placed between the toes, so as effectually to separate them and secure thorough application of the ointment. Over this the sock or stocking could be worn with a light new slipper, and patient allowed to pursue his or her ordinary calling. This dressing to be repeated every twelve hours for ten or twelve days. The foot not to be wetted after treatment has begun, but wiped when necessary with a dry cloth, or washed with dry bran or other mealy substance, should any part become dirty or caked with old ointment, etc.

Whether mild or severe, all cases are curable by it, and no other method seems to yield such a prompt and satisfactory result. To insure success, the whole of the skin of soles and sides of feet and toes must be tanned by the process and gradually thrown off as brown leathery exfoliations in from two to four weeks. All boots, shoes, slippers, etc., worn by patient should be discarded; because if worn again the patient is reinfected in three or four months, and gradually becomes as bad as at first. Stockings or socks should be very carefully cleansed and disinfected by heat or by steeping in a hot solution of perchloride of mercury (one in one thousand of water) for several hours before being washed. Neumann directs that Hebra's ointment and dressing should be changed once in three days for nine days, that is, three times altogether, a method not to be relied on in many cases seen in this country.

What I have found to yield the most satisfactory result, in treating a tolerably long series of cases, is to have the feet thoroughly washed in hot water, then steeped for a few minutes in a solution of permanganate of potash of the strength of from four to six grains to the ounce of water. The feet are then dried not to be again wetted until complete exfoliation of the tanned cuticle has taken place. Hebra's lead plaster ointment is then thickly spread on strips of cloth about one and one-half inches broad, and the foot covered from toes back over heel as high as the malleoli with these, arranged and applied like a scultetus bandage. Each toe should be wrapped round with a strip of clean rag half an inch broad and thickly spread with the ointment. This dressing should be renewed every twelve hours with fresh rag and ointment, for a period varying from ten to sixteen days, according to the severity of the case, and the thickness of the heel skin. In most cases the odor will be very much diminished by the end of the third day, and will not be perceptible by the ninth. The shedding of the skin takes place *pari passu* with the growth of the new cuticle, and may not be completely effected until the end of the third or even fourth week.

THERAPEUTIC NOTES.

For Bites of Insects.—Professor Bartholow recommends permanganate of potash for bites of insects.

Whooping-Cough.—The late Dr. Fagge, in his "Practice," mentions in his treatment of this disease the inhalation of the vapor from a boiling two per cent. solution of salicylic acid.

Rheumatic Periostitis.—Professor Da Costa recommends:

℞.	Potassii iodidi	ʒij.
	Tinct. cinchonæ comp	℥j.
	Spts. ammonii aromat	ʒiv.

M. Sig. One teaspoonful three times daily.

Pruritis Ani.—

℞.	Hydrarg. bichlor	gr. ij.
	Acidi carbolici	gr. x.
	Alcoholi	℥j
	Aquæ camphoræ	℥j.

M. Sig. Use as a lotion.

Chlorosis.—

℞.	Strychina sulphatis	gr. ss.
	Liq. potassii arsenitis	ʒiss.
	Tinct. ferri chlor	℥ss.
	Elix. simp. q. s. ad	℥iij.

M. Sig. One teaspoonful in water after meals.

Chronic Bronchitis.—

℞.	Tinct. benzoin comp	ʒviij.
	Tinct. opii camph	ʒiv.
	Syr. scillæ comp	ʒvj.
	Syr. tolu	ʒvj.

M. Sig. A dessertspoonful every four hours.

Whooping-Cough.—

℞.	Tinct. belladonnæ	♏xvj.
	Syr. ipecac	ʒss.
	Aluminis	ʒj.
	Syr. pruni virginianæ	℥ij.

M. Sig. One teaspoonful in water every three hours.

Kava as a Remedy for Gonorrhœa.—Kava, a piperaceous plant indigenous to the Sandwich Islands, has been recommended by Dupay and Gubler as a specific for gonorrhœa and leucorrhœa. It acts as a diuretic, diminishes the inflammation and allays the pain. It has the advantages over copaiba of possessing an agreeable taste and of not disturbing the stomach.

Membranous Croup.—Dr. John H. Owings speaks very highly of the following combination:

℞.	Tinct. eucalypti	ʒv.
	Pilocarpinæ mur	gr. ss.
	Vini pepsinæ	℥j.
	Syr. tolu q. s. ad	℥iv.

M. Sig. One teaspoonful every half hour.

Dilatation of the Heart.—Professor Da Costa recommends:

℞.	Pulv. digitalis	gr. iv.
	Strychnia sulphatis	gr. ¼.
	Ext. belladonnæ	gr. ij.
	Ferri sulphatis	gr. xvj.

M. Ft. pilulæ number xvi. Sig. One pill after meals.

Iodide of Sodium in the Treatment of Syphilis.—A number of cases of tertiary syphilis is reported by Arcari, in which rapid improvement was due to the hypodermic use of this drug in quantities of about ten grains four or five times a day. He recommends the simultaneous use of thirty grains by the mouth with only two daily injections in cases where an organ is seriously threatened from syphilitic deposits.

Measles.—Dr. Bedford Brown, of Alexandria, Virginia, recommends the following combination in measles:

℞.	Ammonii carb	gr. xvj.
	Tinct. ignatiæ	♏viij.
	Tinct. digitalis	ʒss.
	Aquæ menth. pip	℥j.
	Syr. simp	ʒj.

M. Sig. One teaspoonful every three hours.

Inhalations of Oxygen in Puerperal Convulsions.—It is known, says Holstein, that oxygen has the property of enfeebling, or, to use a fashionable term, "inhibiting," exaggerated reflexes. On the strength of this fact, Professor Lachkièvitch, of Kharkow, lately proposed inhalations of oxygen in cases of puerperal eclampsia of reflex origin. In two consecutive cases Favre, acting on the suggestion, has produced some truly brilliant results. He is convinced that a bag of oxygen will soon be considered as indispensable in lying-in hospitals and obstetrical clinics as the forceps, the cranioclast, and other like instruments.

Diuretic Mixture.—Dr. Joseph Mullone, of Lyons, Indiana, has treated a number of severe cases of anasarca, most of them of distinctly malarial origin, and has been much pleased with the action of the following formula:

℞. Compound spirit of juniper............	oj.
Sulphate of iron............................	ʒij.
Acetate of potassium......................	℥ss.
Fluid extract of digitalis................	flʒij.
Syrup of squill..............................	fl℥ss.

Dose: a tablespoonful three times a day.

In severe cases the patient is to drink also an infusion of elder root.

Nitro-Glycerine in Interstitial Nephritis.—As opposed to the theory that a sufficient urinary excretion is kept up by the increased arterial pressure consequent upon the cardiac hypertrophy, Rossbach, adduces the results which he produced with nitro-glycerine in three cases of contracted kidney, in which the patients had increased arterial tension, albuminuric retinitis, uræmic asthma, and general ill-health characteristic of generalized and advanced arterial sclerosis. In spite of the lowered tension produced by the drug, the uræmic symptoms were diminished, the urine was increased in amount, the albuminuria became less evident, and the retinitis grew less marked and less troublesome.

Lime in the Treatment of Bronchial Catarrh.—The following mixture is recommended by Trastour:

℞. Iodide of calcium..........................	75 grains.
Lime water....................................	3 ounces.
Distilled water...............................	12 ounces.

A soupspoonful should be taken at the beginning of the two principal meals, in a glass of wine and water or in milk, and the use of the preparation should be continued for a long time, together with frequent counter-irritation and the repeated use of laxatives and balsamics. In case of asthma-like oppression antispasmodics and calmatives will be needed, especially morphine.

Alum in Purulent Ophthalmia.—Mr. John Tweedy, speaking of the recommendation of alum solutions to be used on the appearance of any discharge from the eyelids from young infants, says: Though alum is one of the commonist remedies for conjunctivitis, its use is, in my opinion, not unattended with danger, whenever there is any chance of the cornea being abraded, eroded, or ulcerated. In conjunctivitis, and especially in purulent conjunctivitis, one or other of these lesions is seldom absent. The danger is that the solution of alum, gaining access to the corneal cement, will dissolve it, and thereby facilitate perforation of the cornea. Other medicaments, equally efficient as alum, are free from this fault—namely, chloride of zinc, perchloride of mercury, boracic acid, etc.

TREATMENT OF DIABETES INSIPIDUS.—Of the various drugs which are held to exert a curative influence upon diabetes insipidus, ergot has been successfully employed by various practitioners, such as Da Costa, Macaulay, Williams, and Lacy. Da Costa noted a very decided improvement under its use in five cases, and attributes this effect to capillary contraction in either the kidneys or nervous centres. Given in a dose of one to two drachms of the fluid extract three times daily, the drug causes rarely any inconvenience. Valerianate of zinc and the tincture of valerian seem likewise to induce a favorable termination of this affection, if persisted in for a sufficient length of time. Such is the testimony of Lunin, Prior, and Cole, who used these drugs in a number of instances. Kennedy prefers the dilute nitric acid (one fluid drachm to five fluid drachm pro die in water), though admitting that this drug is apt to cause unpleasant after-effects, which are occasionally of sufficient gravity to forbid its continuation. Althaus and Clubbe found protracted faradization of the renal zone or galvanization of medulla oblongata to also give satisfactory results.

SALICYLATE OF COCAINE IN THE TREATMENT OF TRIGEMINAL NEURALGIA.—Schneider relates the case of a woman in her third attack of neuralgia of the second and third branches of the trigeminus. The first attack, five years before, has been treated successfully with large doses of quinine. The second attack lasted almost six months; quinine was of no avail, but the pain gradually disappeared under the use of morphine and iron. The third attack had continued four weeks when the author injected salicylate of cocaine experimentally. The effect was extraordinary; six grains of the salicylate, injected into the cheek, caused the pain to disappear entirely, and occasioned a general feeling of well-being, wholly free from any unpleasant collateral phenomena. The injection itself was painless and did not give rise to irritation. The patient was enabled to sleep at night, although before the pain had been most severe at night. Eight such injections were given in the course of six days, and after that there was no pain. except at the site of the injections, which was overcome by three applications of galvanism with the anode applied to the seat of the pain and the cathode to the back of the neck.

APOMORPHIA IN OBSTINATE NEUROSES.—Apomorphia, for a long time used only as an emetic, has recently been successfully applied to the treatment of obstinate neuroses. In chorea in a girl of thirteen, two injections, each about one-twenty-fifth grain, were given daily for three weeks, when the patient was discharged, cured. Another girl of the same age, subject to epileptiform cenvulsions, was given two injections of from one-twentieth to one-tenth grain, each day, the treatment being kept up for thirty-eight days and resulting in a complete cure. A case of hiccough recurring from thirty to forty times a minute, and which was fast exhausting the patient, was cured by two hypodermatic injections. Morphia, atropia, and other drugs, had been tried without effect, as had also electrization of the phrenic.

THE PHARMACEUTICAL AND THERAPEUTICAL USES OF ALGIN.—Mr. Watson Smith calls the attention of pharmacists and physicians to a new product, *algin*, discovered by Stanford. It is a residual product of the wet way of obtaining iodine from certain marine algæ, being a nitrogenous principle, closely resembling albumen except in not being coagulated by heat. It forms perfectly definite *alginates* with metals. The alkaline and earthy-alkaline alginates are soluble, but the others are insoluble. The double alginates are easy of preparation, and almost all of them are soluble. Besides possessing many curious chemical properties giving promise of extensive applicability in pharmaceutical and other processes, algin has a notable alimentary value and may be advantageously substituted for gum arabic in the preparation of a great number of dietetic and medicinal products.

THE TREATMENT OF EPILEPSY.—Dr. Charles K. Mills says in a paper on this subject: The way to treat epilepsy medically is to simply have a plan of treatment, and carry it out over a series of months or years. I would, for instance, first put a patient upon a single bromide, say ten or fifteen grains three times a day, to be increased until a decrease in the number and severity of the paroxysms was produced. I would keep him upon this perhaps for a month, and then use the mixed bromides, or some combination of bromides with other drugs, preferably the bromides, arsenic and conium prescription, watching the condition of the patient, and, if necessary, putting him on cod-liver oil, quinine and iron. With reference to nitrates, bromates, etc., there is probably some chemical or chemico-physiological reason for their inefficiency. The *ites* and *ates* would probably *never* give as good results as the *ides*. I further agree with Dr. Pepper that close attention should be paid to every point in the daily life of an epileptic—to diet, regimen, rest, and hygiene; but I do not, with my present experience, believe that a genuine case of thoroughly-developed epilepsy can be cured, or even greatly benefited without drugs. Among the surgical and external means of treatment which I have successfully used are excision of cicatrix, removal of neuroma, actual cautery, and blistering to the neck or head. I do not use counter-irritation to the scalp, but am a strong believer in the actual cautery, used after Brown-Sèquard's method, to the nape of the neck.

THE
PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. FEBRUARY, 1886. NUMBER II.

ORIGINAL ARTICLES.

REPORT OF A CASE OF FAT EMBOLISM.

BY DRS. BONINE AND BELKNAP, NILES, MICHIGAN.

Mr. B., fifty years of age; a lawyer of sanguine, nervous temperament; a widower with two children; previous health good; family history perfect. On the evening of November 24, 1883, he fell down a flight of stairs, fracturing the right femur near the neck, and inflicting a slight injury to the scalp, over the left eye. Saw him about twenty minutes after the accident. Found him perfectly rational, with pulse quite frequent, and extremities cold. Removed him to his boarding house, restored the circulation, and put the limb in a comfortable position, and the day following applied a pully and proper dressing.

Nothing unusual appeared in the case, until the seventh day following, when he complained of inability to sleep, and seemed unusually nervous, with some mental disturbance. Gave him anodynes, but without the desired results, the nervous and mental disturbance increasing.

Monday A. M.: Nervous and excitable; pulse 90; temperature 99½; surface natural. Complained of a sharp, cutting pain in the upper part of left lung. Percussion and auscultation failed to reveal any pathological condition.

Tuesday A. M.: Nervous symptoms and mental disturbance quite marked, talking continually and disconnectedly. Had slept but little during the night. Pulse 85; respiration 25; temperature 100.

Tuesday P. M.: Had been quite restless during the day, and complained of severe pain in left chest and shoulder. Had complained some of being cold, but had no distinct chill. Pulse 90; temperature 103; respiration 30; a slight hacking cough. Gave chloral hydrate and bromide of potassium to procure sleep, also veratrum viride with spirit of nitric ether. Was called out of town and did not see him again until Wednesday noon, when he was delirious, talking incessently and wildly. Pulse 100; temperature 101; respiration 30, slightly irregular; dullness over lower part of left lung, and a peculiar snapping sound upon auscultation.

Wednesday P. M.: Pulse 104; respiration or temperature not taken, owing to his mental condition.

Thursday A. M.: Pulse 106; temperature 101; respiration 35; delirium and dullness of lung increasing; surface moist; countenance flushed a purplish hue. Had slept but little, but lay in a semi-comatose state, moaning and talking unintelligibly. Respiration quite irregular. Up to this time his bowels had moved naturally every day; tongue moist, but slightly coated, and appetite quite good; urine normal in quantity and appearance. Treatment had been bromides as they proved to have the best effects, combined with veratrum viride, spirits nitre, etc.

Thursday P. M.: Pulse 96; temperature 102; respiration 35; dullness and delirium about the same. Had slept a little during the day. Tongue bore a white coating but moist; pupil of eye natural; no cough nor expectoration; was quite thirsty, but had taken little nourishment during the day.

BOSTON MEDICAL LIBRARY ASS'N
MAY 27 1887

Friday A. M.: Pulse 100; temperature 101½; respiration 38. Had rested some during the night. Delirium about the same with carphologia and subsultus; dullness now extended over two-thirds of left lung. Respiration laborious and irregular.

Friday P. M.: Condition about the same. Had taken very little nourishment during the day.

Saturday A. M.: Had spent a very restless night. Pulse 104; temperature 102; respiration 40. The other symptoms much the same as yesterday:—surface moist; pupil contracted at times, but might be attributed to the effects of the Dover's powder, which was given in small doses in connection with hydrargyrum cum creta.

Saturday P. M.: Very little change in symptoms.

Sunday A. M.: Had spent a restless night, moaning and picking the bed clothes incessantly. Pulse 108; respiration 48, and very irregular; temperature 103. Very little air entered the left lung. Tongue coated but moist; countenance quite purple; extremeties warm and moist; condition about the same.

Monday A. M.: Pulse 96 to 100; respiration 48; temperature 101½. Rested some during the night, but quite delirious and restless at times. Pupil somewhat contracted, but responded to light. Respiration quite irregular. Countenance a darker hue.

Monday P. M.: Pulse 100; temperature 102; respiration 50, and very irregular. Mental disturbance continued. Applied blister six by eight inches over left lung.

Tuesday A. M.: Had rested better. Pulse 98; temperature 101½; respiration 45. Countenance lighter in color. Blister had filled well. Applied another the same size, extending from spine around under left arm.

Tuesday P. M.: He had been more quiet during the day. The second blister filled nicely. Pulse 96; temperature 100½; respiration 40, and much more regular; countenance somewhat flushed but lighter in color.

Wednesday A. M.: Professor Donald Maclean having been asked to see the case met us at the time. Patient had rested better during the night, and had taken some nourishment. Pulse 96; temperature 100; respiration 38, and more regular, and some improvement in his mental condition. Recognized his friends, answering some questions intelligibly. After a careful examination of the case, Professor Maclean suggested that it presented marked similarity to a discription given in the *International Enclycopædia of Surgery*, which discription proved upon examination to be of such unmistakable similarity that the case was pronounced one of fat embolism, and an examination of the urine revealing the existence of fat globules, confirmed the diagnosis. Previous to the visit of Professor Maclean the patient had been seen and examined by some of our local physicians as well as a physician from Chicago, and we were each unable to account for his condition or give a satisfactory diagnosis, none of us having ever met with a case presenting the same peculiarities.

The case improved slowly but without interruption, the lung clearing up faster than the brain, and the patient made a good recovery, with a shortening of the limb of about three-quarters of an inch.

CLINICAL LECTURES.

EMPHYSEMA OF THE LUNGS.

BY PROFESSOR HARDY, PARIS, FRANCE.
Medical Clinic at Charity Hospital
REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY OUR PARIS CORRESPONDENT.

I wish to speak to you to-day of pulmonary emphysema, and so that its physical signs will be better fixed in your memories, I present to you a patient who is a veritable type of the malady. He is forty-nine, wagoner by profession, and is well constituted, being rather strong in fact. In 1870 he met with an accident; his horse drew him into the river, during the winter, and he had a severe attack of what he calls the "*poitrine.*" Following this attack he coughed a great deal, and not a single winter passed but what he had a violent cold, and at the same time he noticed that he had a difficulty in breathing, in mounting up stairs or in making any unusual effort. With all this he admits some vomiting in the mornings and a trembling of his hands; in short, an alcoholic state that is very easily explained, as he relates as a fact that he was in the habit of taking over five quarts of common wine every day. However, he has stopped that, and does not now complain of the last symptoms. Besides his oppression and his cough his legs were swollen from time to time.

That is his past; now for his present history. A month ago he began to cough very much more and was obliged to stop work and come to the hospital. His oppression had increased also. You will all be struck with the appearance of his chest. It is a sort of bay window, rounded out and dilated on all sides, the clavicles are hardly perceptible. No excavation is seen above or below. The neck is so short that it would seem as though his chest had risen up as well as enlarged. He also says that his chest is too tight in his clothes. Notice also how it rises all together as if it were all one piece, and note the abdominal respiration; it is not that the ribs separate from one another as is the case normally, but it is really the chest that rises "*en bloc,*" and the muscles of the abdomen are aiding the thoracic muscles. This barrel-chest is very remarkable, and gives you an idea of emphysema at once, but we have other signs. No vibrations are felt on percussion, and under the clavicles there is a manifest resonance. It is quite tympanitic, like as though we were beating on a drum head. As a rule, in the normal state over the heart, you will find a dullness on percussion. Not so here; it resounds just as much there. Indeed you cannot feel the heart's movements as it is pushed back and covered over by the dilated lungs. In percussing on the right side, we can see that the normal dullness of the liver is modified; one can find it in a healthy person at about two or three thicknesses of the fingers below the nipple, but here we have to go below the false ribs to find it. It is therefore considerably lowered from its position, the lungs in fact are trying to get more room.

Respiration is feeble. The respiratory murmur is almost imperceptible. The expiration is equal to the inspiration, a fact that is very important to note. When he came in there was very distinct subcrepitant rales to be heard.

To these physical signs we can add some important symptoms: a considerable dyspnœa; he can only walk with great difficulty: at night he is often taken with an attack of asthma. Besides all this he spits a great deal. The "*crachat*" is not very liquid, and contains little masses with uneven borders, but this is not tuberculous; this is the bronchial complication which is generally associated with this affection. The case is such a typical one that I shall not dwell on the differential diagnosis. There is no tuberculosis. Is the heart affected? We have already said that an examination of the heart was extremely difficult owing to its sounds being so difficult to hear. The pulse is regular enough. There is, however, a sign that makes me think there may be some heart complication. That is, the jugulars are very much swollen, so I am tempted to admit that there is some such trouble here, particularly as he told us that his legs had been swollen several times. The absence of stethoscopic signs will not stop my diagnosis. I admit that there is a dilation of the cavities on the right side of the heart; as to the left side I can have my suspicions, but I have no proofs to offer.

We have here what I can call a forced heart, for pulmonary respiration being incomplete, the blood has a tendency to stagnate in the right side of the heart; it traverses then with great difficulty the lung vessels, so that more venous blood remains there than should.

Our diagnosis being complete, what is the prognosis? It is both good and bad; at present he is better than when he came in, and he will go away much better, but not cured. He will still cough and the slightest fatigue or cold will make him worse at once. He cannot, therefore, work at his business, and he will finish with the cardiac cachexia, but I must say that it will not be soon. I have seen plenty live some years, ten, even fifteen years.

While there is no cure, still we have some good palliatives, and we must treat above all the bronchitis. To do this give him the usual pectoral drinks and potions with ten centigrammes of Kerme's mineral in them to facilitate expectoration. This is the treatment by which we have obtained the amelioration you notice. Can we act directly on the emphysema? Well, up to a certain point we can obtain good results from the administration of the preparations of arsenic; with five or six drops of Fowler's solution, we will see the respiration become more free. This sort of medication we have from the horse doctors, as they used it to make emphysematous horses trot more readily, and under its influence they appear more vigorous, but it is only a palliative after all. We might also try compressed air and inhalations of oxygen, but it is best to keep these remedies for the acute attacks. Opium or belladonna may be given to get rest at night and during attacks. Many more remedies might be mentioned, but they would only serve to show the helplessness of therapeutics in these cases. Exercise must be permitted as far as possible and strict hygeine in every way, but prolonged exertions are to be forbidden as well as the use of alcohol.

ORIGINAL TRANSLATIONS.

GERMAN LITERATURE.

TRANSLATED BY J. A. BOBB, CALUMET, MICHIGAN.

A CASE OF CONGENITAL, PARTIAL OBLITERATION OF THE GALL-DUCTS.

BY DR. R. LOMER, BERLIN,
Assistant Physician at the Female Clinic.

This case, which I here take the privilege of communicating, seems to be one of uncommon rarity, in fact, as far as I know, there is no other case like it on record. I carefully searched the medical literature to find one analogous to it but without success. The abnormality of the case under consideration was a congenital obliteration of the right hepatic and cystic ducts; for which reason the entire right loble of the liver became contracted and degenerated into cysts, and the gall-bladder also became obliterated; while on the other hand the left lobe remained perfectly normal. The following are the characteristics of the preparation which Dr. Karl Ruge had the kindness to prepare:

The preparation was obtained from the child of a woman forty-three years old who had given birth to nine mature, living children. Her husband had acquired a chancre three years ago. A year afterwards the woman aborted without having any appearance of syphilis; and now, on the 23d of December, 1883, she gave birth to an immature child. From this last one our preparation was obtained. The child weighed eight hundred and ninety grams, placenta two hundred and sixty, liver sixty, spleen five. The skin was macerated, the abdominal walls œdematous, and the abdominal and pleural cavities contained large quantities of bloody serum. The enlarged spleen as well as the distinct alterations in the bones showed that it was of a syphilitic nature. The liver presented the following peculiarities:

The left lobe was comparatively large, otherwise normal. On the contrary, the right lobe was very much contracted, the surface had an irregular appearance, and had a peculiarly knotty, uneven structure, and the tissue was hard and scar-like in texture. On account of its peculiar coiled structure it had a very similar appearance to the surface of a brain. From the middle of this contracted lobe a cyst, the size of a cherry, projected, which was distinctly separated from the structures. The surface of this cyst was smooth, the walls were composed of two separable layers: one a quite thin serous-like membrane, and the other, the inner one, a very thin skin. This inner skin threw out projections, forming partitions, and thus divided the cyst cavity into several apartments. The contents was a thin, slightly yellowish fluid.

On section of this lobe, it was found that these cavities extended throughout the whole lobe, and that the entire structure had that coiled, brain-like appearance the same as on the surface; the remaining tissue of this lobe was of a hard scar-like texture. In contrast with this, the left lobe on section was found to be perfectly normal. The pathological condition was entirely confined to the right lobe. The ductus venosus Arantii, ligamentum teres, and vena cava were in a normal condition. Also the lobus quadratus, and lobus Spigelii were normal. The pathological area is limited by the middle line: above .by the suspensory ligament, which was also normal, below by a line which extends from the vena cava around the lobus quadratus to the ligamentum teres. On inspection the lower surface of the liver had a similar pathological appearance as the upper.

The gall-bladder was collapsed, the anterior and posterior walls are in contact, but are separable. The following were the conditions in the porta hepatis:

(1) Ductus hepaticus sinistra, normal.

(2) A cord with an indication of a lumen, which after the degeneration of the right lobe also degenerated (obliterated ductus hepaticus dextra.)

(3) A cord without a lumen, which extended towards the gall-bladder (obliterated ductus cysticus).

(4) Normal vena portæ and arterial hepatica.

In reviewing these conditions we find an obliteration of the right hepatic duct and cystic duct in a macerated, syphilitic, immature child. While the left lobe of the liver is normal and the bile finds its way through the open left hepatic duct into the ductus choledochus communis and from thence into the intestines; the obliteration of the cystic duct caused the gall-bladder to collapse, and the obliteration of the right hepatic duct caused the enlargement of the smaller branches of this duct in the liver substance and finally the cyst-formation of the right lobe. At the same time cirrhotic processes began, which gave the tissues the scar-like texture and its surface the peculiar form. If we look for similar conditions in medical literature, we will find a single short chapter by Gerhardt on occlusion of the gall-ducts by cicatricial tissue due to the so-called periphy lephlebitis syphilitica. In the following table I have collected all the cases which appear to me would come under this category:

It is shown by this table that the observations coming under this consideration were all made upon living, born children which either died in a very short time or lived for several months. They all died under the appearance of icterus and atrophy: most of them had only white stools before death. Of the five cases in which the history of the parents were known,

No.	Name of the Observer.	Age of the Child.	Symptoms.	Anamnesis of the Parents.	Gall-ducts.	Gall-bladder.	Liver.	Porta hepatica.	Remarks.
1.	Wilks, by Binz.	4 weeks.	Icterus, white stools.	?	Obliterated.	Obliterated.			
2.	Romberg and Henoch, by Binz.	4 months.	Icterus, atrophy.	?	No trace of the ducts.	Rudimentary.	Diminished in size.		
3.	Donap, by Binz.	2 months.	Icterus, atrophy, cramps.	?	Obliteration of choledochus in whole extent.				
4.	Binz, *Thesl. Arch.*, Bond XXXV, Seite 360.	2 days.	Icterus, bloating of the abdomen, no stools.	The father had a chancre.	Ductus cysticus and ductus choledochus had only traces of lumen.	Filled with tough mucus.	Enlarged.	Cloudy, thickened patches at lower peritoneal covering.	Brothers, number 5 born one year after number 4.
5.	Binz.	1 day.	Icterus, coma.		Chords without lumen the only evidence of gall-ducts.	Filled with normal bile.	Large, anæmic capsule of Glisson thickened.		
6.	Binz.	3 weeks.	Icterus.	Parents reported healthy.	Cystic duct, hepatic duct, and end of ductus choledochus with't lumen.	Over-full with bile.	Only the left surface of the liver diseased.	Tissue of liver in excess.	
7.	Cursham. *Schmidt's Jahrb.*, 39. 297, *Lon. Med. Gaz.*, No. 29, 1865.	6 weeks.	Icterus, white stools.	?	Ductus cysticus and choledochus without lumen.	Rudimentary.	Larger and less movable than normal.		Was born with icterus.

8.	Heschl, *Wien. med. Wochenschrift*, No. XXIX, 1865.	7 weeks.	Icterus, white stools, sopor.	?	No trace of ductus choledochus nor of the other gall-ducts in the liver.	Rudimentary.	Larger than normal, anæmic, inter-acinus connective tissue increased.		
9.	Hennig, *Jahrb. fur Kinderhlk.*, IX, Seite 400.	5 days.	Icterus, colorless stools.	?	Ductus choledochus perfectly closed.	A small amount of yellowish gray mucus in gall-bladder.	Icteric.		
10.	Same as 9.	A few days.	Icterus.	?	The cystic duct diminishes rapidly in size from its entrance into ductus choledochus until it finally ceases entirely.	A large amount of greenish brown bile.	Slightly icteric, otherwise normal		
11.	Freund, *Jahrb. fur Kinderhlk.*, IX, Seite 178.	3 months and 3 days.	Icterus, atrophy, white stools.	Mother reported healthy.	No trace of ductus, nor ductus choledochus even on very close examination.	The sac is 1.5 cm. long and cæcum-like in shape, contains a few drops of sticky fluid of the color of water.	Enlarged, hard, connective tissue increased.		The woman had twins, both icteric—the other one lived.
12.	Lotz, *Berl. klin. Wochenschrift*, 1876, No. XXX.	8 months.	Icterus, bronchopneumonia.	Father had an ulcer three years	Duct. choled. pervious, but the opening very small, duct. cysticus entirely wanting.	Filled with quite clear, thin, slightly mucous.	Enlarged, cartilaginous, due to cicatricial tissue	Beset with porous, sat'rated lymph-glands.	

No.	Name of the Observer.	Age of the Child.	Symptoms.	Anamnesis of the Parents.	Gall-Ducts.	Gall-Bladder.	Liver.	Porta hepatica.	Remarks.
				ago, was treated with mercury.	Light hepatic duct could be traced a short distance into the liver. The left hepatic duct also very short, but strands of its connective tissue can be traced some distance further.				
13.	Roth, *Thesl. Arch.*, Band XLIII, Seite 296.	4 months.	Icterus, atrophy.	See remark.	Are wanting entirely. The duct. choledochus can only be traced two lines from its papilla. The ducts are enlarged in the liver substance, but are without outlets, filled with a greenish granular substance.	In the place of the gall-bladder there is a chord containing two cysts each of the size of a pea, containing a clear fluid.	Large, solid, tough, capsule diffused, thickened.	Portal glands large, icteric.	On acc'nt of the pres'nce of abscesses of the skin syphi is was m'nifest.
14.	Schuppel, *Archivfur Heilkunde* Band XI, Seite 77.	9 days.	Icterus, white stools.	Syphilitic.	Ductus hepaticus so entirely closed up with connective tissue that a bristle could with difficulty be passed.	Filled with serum as clear as water.			

in four it is reported that the father had syphilis. In one case the same woman gave birth to two children which died under the same phenomena, and on section the tissue changes were just the same.

In a more advanced case in which the history of the parents was wanting, section of the abscesses of the skin, present in this case, also pointed to syphilis. In contrast with this, one case is given in which the health of the parents was reported to be very good.

Where any mention is made in regard to the condition of the liver it was reported as large, of a strikingly dense and hard consistency caused by cords of connective tissue passing through the organ in every direction. Only one case is mentioned where this organ was diminished in size, and where on section the gall-ducts were found to be constricted. In four cases excessive connective tissue and peritoneal thickening were found in the porta hepatis. Respecting the gall-bladder we find in the literature of these cases the following: six times they were rudimentary or obliterated; six times they contained light colored mucus; three times bile normal in appearance.

The obliteration of the gall-ducts was of the most weighty importance. In ten cases they were entirely obliterated, that is, there was not a trace of a lumen to be found. In the remaining four cases they were only pervious for a short distance or the lumen was exceedingly narrow.

If we contrast our preparation with these cases we find important differences in these conditions. While all these cases present a certain similarity, our case has a peculiarity of its own and seems to stand apart from these cases. Above all, the obliteration of the right hepatic duct and cystic duct makes this case of a striking peculiarity and it seems to stand isolated in literature. These conditions give this preparation a characteristic peculiar to itself and as far as I know no case similar to it has ever been recorded. In the second place our case differs from the others in that the cysts were formed to take the place of the obliterated ducts in the diseased part of the liver and that the enlargement of the bile ducts went hand in hand with the contraction of the tissues and that this contraction gave the brain-like coiled appearance to the surface of the liver. Only in the case reported by Roth do we find an enlargement of the gall-ducts. It is not entirely explained why cysts were not formed in the other cases. Heschl thought of this; he says: "The gall-ducts, if indeed there are any present, should according to the analogy of constrictures of large ducts, enlarge." Finally, our case differs from the others in that our preparation was obtained from an immature child. In the case of Hennig it was also an immature child, but in that case it lived for several days. Except these differences we are of the opinion that this case is an occurrence similar to the others referred to and it seems to us that this is of special interest on account of it being an exceptional case. Thus far two explanations have been attempted for these causes. There is either a lack of development—a *vitium primæ conformationis*, that is, the primitive solid gall-ducts remain closed—or it is the result of perihepatization of the porta hepatis, on account of which, secondarily, the gall-duct became constricted and finally obliterated. Heschl seems only to consider the first explanation. He considers the process as an interception of development, as a lack of canalization of the gall-duct. Lotze also considers this assumption the more probable, although he expresses himself very prudently on the subject. He founds his suppositions on the grounds that the history of syphilis from the father,—that is, the perihepatization process—is very doubtful; further that the interception of development was an exclusive involvement of the gall-duct and not the vessels of the liver, points to the first explanation. Binz in his cases is rather doubtful whether the cause was syphilis. Yet he is confident that the father of the children in the cases of Lotze had an ulcer and was treated with mercury accordingly. Likewise the cases reported by Binz had the same relation in regard to this disease. The circumstance that the mother, whose husband was syphilitic, gave birth to two successive children, both of whom died under similar symptoms, and the tissues presented the same pathological conditions on section, seems to us evidence enough that syphilis in the cases of Binz was the cause of the pathological changes.

As the case of Roth was very evidently, and ours beyond a doubt, a case of fatal syphilis, it must be admitted that the children of syphilitic parents have a strong predisposition for the development of this disease, for in the six cases which have been considered under this head, syphilis played an important role in five. To this must be added the case Schüppel in syphilitic-born children in which was observed an excess of connective tissue in the porta hepatis, and which disturbing influence caused degeneration both of the vessels of the liver and the gall-ducts. Here also the knotty and cordy condition was observed the same as in the other cases. For this reason it seems to us certain that syphilis was the causa peccans in all these cases, and that our case was a rare event inasmuch that only the cystic and right hepatic ducts were constricted while the left hepatic duct remained pervious. This partial obliteration presents nothing especially remarkable, for in the case of Hennig the cystic duct was only affected, and in the case of Lotze the ductus choledochus was yet pervious. It is interesting to notice the process of contraction and the change of tissue of the right lobe of the liver into a cicatricial form in contrast with the normal condition of the left lobe. It is not plain why the enlargement of the gall-ducts and cystic formation did not take place in the other cases, while in our case it was so striking, nevertheless, in the case of Roth we have some indications of these conditions. Cases have been observed in adults in which the gall-bladder was wanting, but this difficiency was traced back to at least partial congenital influence. It is difficult to say how often these cases can be traced to this cause. At all events the results of these observations are of great physiological interest and a fact worthy of notice, inasmuch that infants under certain conditions may live months without bile ever reaching the intestines. If we consider syphilis as the etiology of the above pathological changes, and that similar processes take place in infants also in intrauterine life as observed by Schüppel (that this is so is shown in the cases of Binz in which two children—respectively one and two days old—had excessive connective tissue at the peritoneal covering at the under surface of the liver), then the question must be asked, how early in fœtal life can this process begin? Our case according to its weight had reached the sixth or seventh fœtal month, and judging from the tissue changes this process must have set in very early in fœtal life.

Roth and Heschl have come to the same conclusion. In the true sense of the word we have only here to do with malformation, and as such were the cases first described directed to. It is on account of the rarity of the cases that the pathology of the deformity can with difficulty be prosecuted, and a representation of its origin be made upon a pathological-anatomical basis.

JAPANESE LITERATURE.

TRANSLATED BY JUNE KICHI KIMURA, ANN ARBOR, MICHIGAN.

MIZU AME, OR JAPANESE MALTINE.

Dr. J. C. Berry, of Okayama, gives the following interesting account of the process of manufacture of mizu ame in Central Japan:

(1) Malt (moyashi). Made by putting barley into a pail with a perforated bottom, and then moisten with water for two weeks, by which time (varying with the weather) the barley germinates. Spread and dry, rub off the sprouts, winnow and grind, when it is ready for use.

(2) *Mochi-gome* (the very glutinous rice from which the *mochi* is made) one *to*[1], cook the rice by steaming in a wooden box until moderately soft. Remove to a pail and add: malt, four hundred and fifty *momme*[2]; water, five *sho*[1]. Then, with the hands, thoroughly mix the whole, squeezing and crushing the rice until it assumes a hard, jelly-like consistence; then allow it to remain for twelve hours, during which time stir three times. (If weather is very cold, it is covered with straw mats;

if very warm, it is kept in a cool place). Remove and place in hempen bags, put into a strong box and press out the liquid with firm pressure. Lastly, evaporate to proper consistence over a slow fire.

Mizu ame was never used in South-western Japan other than as an article of diet for babies, weakly children and old people, until recently, and at present its use is largely confined to those who have been brought in contact with, or instructed by, foreign physicians. I have used it considerably during the last five years, more especially in cases where food medicines are required; and, after being properly diluted, frequently prescribe it with dialyzed iron and with cod-liver oil. I use it more or less on my table as an article of diet, instead of syrup or honey, especially with one of my children, who has a weak stomach. I imagine that its one single advantage over malt or maltine is its more easy digestibility.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING DECEMBER.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of December, 1885 (five weeks ending January 2, 1886), as follows, the diseases being arranged in the order of their greatest prevalence:

Neuralgia, rheumatism, bronchitis, tonsilitis, consumption of lungs, intermittent fever, influenza, erysipelas, pneumonia, remittent fever, diarrhœa, inflammation of kidney, diphtheria, inflammation of bowels, whooping-cough, typho-malarial fever, scarlatina, typhoid fever (enteric), dysentery, membranous croup, puerperal fever, inflammation of brain, cerebro-spinal meningitis, cholera morbus, cholera infantum, measles.

For the month of December, 1885, compared with the preceding month, the reports indicate that bronchitis, neuralgia and pneumonia increased, and that typhoid fever, typho-malarial fever and diarrhœa decreased in prevalence.

Compared with the average for the month of December in the seven years, 1879 to 1885, pneumonia, remittent fever, typho-malarial fever, intermittent fever, diphtheria and consumption of lungs were less prevalent in December, 1885.

For the month of December, 1885, compared with the average of corresponding months for the seven years, 1879 to 1885, the temperature was about the same, the absolute and the relative humidity were more, and the day and the night ozone were less.

(1) 1 *to* = 10 *sho* = 1097 cubic inches.

(2) 120 *momme* = 1 pound avordupois.

Including reports from regular observers and from other sources, diphtheria was reported in Michigan in the month of December, 1885. at sixty-five places, scarlet fever at forty-two places, typhoid fever at twenty places, and measles at five places.

Reports from all sources show diphtheria reported at two places more, scarlet fever at three places more, typhoid fever at fourteen places less, and measles at one place less in December than in the preceding month, November, 1885.

HENRY B. BAKER, M. D., Secretary.

LANSING, January 7, 1886.

EMESIS FOR THE REMOVAL OF FOREIGN BODIES IN THE AIR PASSAGES.

EDITOR OF THE PHYSICIAN AND SURGEON: Although unsolicited, the following may be acceptable, as some young practitioner may be placed in the same embarrassing circumstances as was the writer.

Not long since I was called in great hurry to remove a foreign body from the throat of a small boy, and upon arriving at the scene of action the following history was obtained: The patient, a lad of seven years, had, about half an hour before, "swallowed a large American cent," which was evidently producing much discomfort as he was wretching and vomiting and crying, at a single breath, and the family was not a little alarmed at his condition.

With these symptoms and the history as given above, I proceeded to make an examination.

I first calmed the patient and friends as much as talking would do, then made the examination as best could be done without the aid of mirror and necessary appliances. Externally, I noticed nothing abnormal, neither could I discover anything down the throat; pressure from without revealed nothing. So, after giving the little fellow two or three swallows of water and finally a small piece of soaked bread without producing pain or any unfavorable symptoms, I concluded that if the coin had entered the fauces it had certainly passed beyond reach and possibly into the stomach. But the boy was sure the cent was still in his throat, and it was evident that something must be done. I had no probe of sufficiet length to be of any use, so my first thought was to run to a dentist's office near by and procure the instruments necessary, but before doing so, was determined to try an emetic, and having the wine of ipecac in my case I administered a sufficient dose to produce emesis in about five minutes, then anxiously awaited the result. My expectations were soon surpassed for in less than ten minutes after administering the ipecac I held the coin in my hand.

While the ipecac in this case proved an efficient and prompt emetic, in a case requiring more rapid or immediate relief, the hypodermic use of apomorphia could be used.

I do not submit this because there is any brilliancy displayed in the management of the case, but it may be of use to some one under similar circumstances.

J. M. ARMSTRONG, M. D.

NORTHVILLE, MICHIGAN, February 10, 1886.

HEALTH IN MICHIGAN DURING JANUARY.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of January (four weeks ending January 30), 1886, as follows, the diseases being arranged in the order of their greatest prevelence:

Neuralgia, rheumatism, bronchitis, tonsilitis, consumption of lungs, intermittent fever, influenza, pneumonia, erysipelas, remittent fever, diarrhœa, inflammation of kidney, diphtheria, whooping-cough, inflammation of bowels, scarlet fever, typo-malarial fever, membranous croup, dysentery, inflammation of brain, typhoid fever (enteric), puerperal fever, measles, cholera morbus, cerebro-spinal meningitis, cholera infantum.

For the month of January, 1886, compared with the preceding months, the reports indicate that pneumonia, tonsilitis and consumption of lungs increased slightly in prevelence.

Compared with the preceding month, the temperature in the month of January, 1886, was lower, the absolute humidity was less, the relative humidity was more, and the day and the night ozone were about the same.

Compared with the average for the month of January in the eight years, 1879 to 1886, pneumonia, influenza, remittent fever, scarlet fever, intermittent fever, typo-malarial fever, measles, bronchitis, and diphtheria were less prevalent in January, 1886.

For the month of January, 1886, compared with the average of corresponding months, in the eight years, 1879 to 1886, the temperature was slightly lower, the absolute humidity was the same, the relative humidity and the day and the night ozone were less.

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of January, 1886, at sixty-three places, scarlet fever at forty-three places, tyhoid fever at ten places and measles at eight places.

Reports from all sources show diphtheria reported at two places less, scarlet fever at one place more, typhoid fever at ten places less, and measles at three places more in January than in the preceding month, December, 1885.

HENRY B. BAKER, M. D., Secretary.

LANSING, February 4, 1886.

EDITORIAL PERISCOPE.

TREATMENT OF ENURESIS IN CHILDREN.

In the *Medical Record* of June 29, Dr. Alexander W. Stein, speaking of enuresis or incontinence of urine, divides its treatment into surgical, mechanical and medical, dependent upon the recognition of its cause.

Surgical treatment naturally includes all operations required for the removal of calculus, phimosis, adhesion of balano-preputial mucous membrane, enlargement of meatus, hæmorrhoids, etc. At the same time let us be conservative in this respect, especially regarding circumcision. We are so impressed with the import of phimosis as a factor in the etiology of incontinence that a boy dare not confess having once "wet" without endangering his prepuce to amputation. I say this because I have known circumcision performed so many times for the relief of incontinence, with scarcely a question, hesitation, or doubt as to the result, and with signal failure. The injunction of Dr. Landon Carter Gray is, I think, here eminently fitting: "That in all cases of nervous disorders with accompanying genital irritation, we should not regard the latter as the cause of the former until all other probable, or even possible, causes have been rigidly excluded." The introduction of a bougie or sound every day, or every other day, is in some cases of decided benefit. Mechanical distention of the bladder by means of warm water injections, repeated daily for a week or more has been successfully resorted to, especially by Braxton Hicks (London), in the cases of several adult females. With the view of strengthening the sphincter power and diminishing undue sensibility, the patient should be enjoined to hold water as long as possible during the day. In this connection may come up the question as to the propriety of waking the child at stated intervals during the night. Many insist upon this as an absolute necessity. So far as it prevents repletion of the bladder it would seem of service, but beyond this the importance of this precautionary measure has, I think, been overestimated. The degree of repletion of the bladder and incontinence do not necessarily stand in the relationship of cause and effect. Children with this infirmity will at times retain an astonishingly large amount of urine, while again the bladder yields to the stimulus of a very small accumulation, and they will wet in spite of every precaution that may be taken to the contrary. I have now in mind a little fellow about nine years old, who is taken up at night and after much coaxing, perhaps threatening, on the part of the mother, and considerable effort on his own (in his partially aroused state), to relax his sphincter, he passes a large quantity of water, much to the satisfaction of the mother, who congratulates herself that she has, in the nick of time, prevented a deluge, but as soon as the little fellow falls asleep he wets himself. This occurs almost invariably, and I have observed this peculiarity in several other instances. Many cases present, in which there is no assignable cause, or in which, the exciting cause having been removed, the incontinence persists; simply from habit, a susceptibility is engendered on the part of the bladder to yield involuntarily to the stimulus of a small quantity of urine, and I question, whether by calling upon the bladder to empty itself at stated periods, we do not promote this habit and act inconsistently with our endeavor during the day to induce the bladder to retain its contents as long a time as possible. In regard to this question a very important consideration is the fact, which I have often noted, that when children are taken up to micturate at night they are so imperfectly aroused that the evacuation of the bladder can scarcely be regarded as a voluntary act, and unless the child is thoroughly awakened and made to micturate with full consciousness and volition, I believe the practice does more harm than good.

The external application of the "essence of birch" is a favorite domestic remedy, and I have in mind at least two or three cases in which, I must confess, I saw it accomplish wonderful results, but these were cases in which the "weakness" was mostly diurnal and was largely due to negligence and bad habit. In the majority of cases, I believe with many, that the children are not responsible for this infirmity, and if psychical influences do not avail, if we cannot arouse their consciousness to the "filthy" habit, and appeal unavailingly to their sense of pride, etc., the slipper will rarely accomplish more.

POINTS IN THE ETIOLOGY AND PATHOLOGY OF DIPHTHERIA.

In an article by Dr. Renshaw (*London Practitioner*) the conclusions are drawn from a recent personal experience in one hundred and twenty-six cases. Experiments were made upon the membrane, administering it to animals. Fourteen experiments were made with the yellowish-white membrane. All were unsuccessful. Six were made with the grayish-white membrane upon similar animals. All were successful. The animals used were cats and dogs. All experiments made on graminivorous animals were unsuccessful. If the disease is thus easily conveyed from man to animals, why may not the return also be true? The results of the Collective Investigation Committee went to show that the disease was believed to result from sewers or bad drainage in one-tenth the cases. The author's experience was that it did not follow any particular line of drainage. Several cases of the transmission of the disease from one patient to another are recorded before the appearance of the membrane. The view is taken that neither decaying vegetation nor animal decomposition alone will produce the disease, but a combination of both. Regarding treatment, the author advocates good ventilation, quinine when the temperature is high, free stimula-potion, painting the membrane with a saturated solution of potassium permanganate, gargling with hypochlorous acid, and, above all, a close watching of every case for complications. The occurrence of epistaxis afforded an opportunity to inject blood from a case of diphtheria and one of scarlatina into the cellular tissue of animals. The diphtheritic blood produced death in a rabbit in seventeen hours from congestion of the lungs, and in a frog in twenty-four hours. The scarlatinal blood produced slight fever, sore throat, coated tongue, and the animal (rabbit) recovered in ten days. Experiments made with membrane from cases of simple membraneous croup, produced negative results. From this the writer reaffirms their non-identity.

OFFICERS AND RULES OF THE INTERNATIONAL MEDICAL CONGRESS FOR 1887.

(1) The Congress shall consist of members of the regular profession of medicine, and of such other scientific men as the Executive Committee of the Congress may see fit to admit, who shall have inscribed their names on the register and shall have taken out their tickets of admission.

(2) The dues for members of the Congress shall be ten dollars each for members residing in the United States.

There shall be no dues for members residing in foreign countries.

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887.

(3) The Congress shall be divided as follows:

I. General Medicine.
II. General Surgery.
III. Military and Naval Surgery.
IV. Obstetrics.
V. Gynæcology.
VI. Therapeutics and Materia Medica.
VII. Anatomy.
VIII. Physiology.
IX. Pathology.
X. Diseases of Children.
XI. Ophthalmology.
XII. Otology and Laryngology.
XIII. Dermatology and Syphilis.
XIV. Public and International Hygiene.
XV. Collective Investigation, Nomenclature, Vital Statistics, and Climatology.

XVI. Psychological Medicine and Diseases of the Nervous System.

XVII. Dental and Oral Surgery.

(4) The General Meetings of the Congress shall be for the transaction of business and for addresses and communications of general scientific interest.

(5) Questions and topics that have been agreed upon for discussion in the Sections shall be introduced by members previously designated by the titular Officers of each Section. Members who shall have been appointed to open discussions shall present in advance statements of the conclusion which they have formed as a basis for debate.

(6) Brief abstracts of papers to be read in the Sections shall be sent to the Secretaries of the proper Sections on or before April 30, 1887. These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress.

Papers relating to topics not included in the lists of subjects proposed by the Officers of the Sections may be accepted after April 30, 1887; and any member wishing to introduce a topic not on the regular list of subjects for discussion shall give notice of the same to the Secretary-General, at least twenty-one days before the opening of the Congress, and such notices shall be promptly transmitted by the Secretary-General to the Presidents of the proper Sections. The titular officers of each Section shall decide as to the acceptance of such proposed communications and the time for their presentation.

(7) All formal addresses, scientific communications and papers presented, and scientific discussions held at the General Meetings of the Congress, shall be promptly given in writing to the Secretary-General; and all papers presented and discussions held at the meetings of the Sections shall be promptly given in writing to the Secretaries of the proper Sections.

No communication shall be received which has already been published or read before a society.

The Executive Committee, after the final adjournment of the Congress, shall direct the editing and publication of its "Transactions," and shall have full power to publish the papers presented and the discussions held thereon, either in full, in part, or abstract, as in the judgement of the Committee may be deemed best.

(8) The official languages of the Congress shall be English, French, and German.

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exception of readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes.

(9) The rules and programmes shall be published in English, French, and German.

Each paper and address shall be printed in the "Transactions" in language in which it was presented, and preliminary abstracts of papers and addresses also shall be printed, each in the language in which it is to be delivered.

All discussion shall be printed in English.

(10) The President of the Congress, the Secretary-General, the Treasurer, the Chairman of the Finance Committee, and the Presidents of the Sections, shall together constitute an Executive Committee of the Congress, which Committee shall direct the business of the Congress, shall authorize all expenditures for the immediate purposes of the Congress, shall supervise and audit the accounts of the Treasurer, and shall fill all vacancies in the offices of the Congress and of the Sections. This Committee shall have power to add to its membership, but the total number of members shall not exceed thirty. A number equal to one-third of the members of the Committee shall constitute a quorum for the transaction of business.

(11) The Officers of the Congress shall be a President, Vice-Presidents, a Secretary-General, four Associate Secretaries, one of whom shall be the French Secretary, and one of whom shall be the German Secretary, a Treasurer, and the chairman of the Finance Committee.

(12) The Officers of each Section shall be a President, Vice-Presidents, Secretaries, and a Council.

(13) The Officers of the Congress and the Officers of the Sections shall be nominated to the Congress at the opening of its first session.

(14) The Executive Committee shall, at some convenient time before the meeting of the Congress, prepare a list of foreign Vice-Presidents of the Congress and foreign Vice-Presidents of the Sections, to be nominated to the Congress at the opening of its first session. .

(15) There shall be a standing Committee on Finance, composed of one representative from each State and Territory, the District of Columbia, the Medical Department of the navy, and the Marine Hospital Service.

The Chairman of the Finance Committee shall report to the Executive Committee of the Congress.

Each member of the Finance Committee shall appoint a local Finance Committee for his State, Territory, District, or Government Department, consisting of one or more members from each Government Department or Congressional District.

Each local Finance Committee shall report through its Chairman to the Chairman of the Finance Committee of the Congress.

Dr. S. C. Gordon, of Maine, recalled his withdrawal from the Congress, which action was accepted by the Committee.

The following named gentlemen were elected to fill vacancies in the Committee of Arrangements:

Dr. J. K. Bartlett, Wisconsin; Dr. J. H. Baxter, United States Army; Dr. George Goodfellow, Arizona; Dr. Henry Leffmann, Pennsylvania; Dr. John Morris, Maryland; Dr. J. R. Tipton, New Mexico; Dr. Thomas J. Turner, United States Navy.

The following resolution was adopted:

Resolved, That the representative or representatives in this Committee from each State, Territory, or Government Department, shall organize the Financial Committees in their respective States, Territories, or Government Departments.

It was decided that no person should occupy more than one position in the organization of the Congress.

It was also decided that, in the published lists of the Officers of the Congress, the names of the Vice-Presidents and Secretaries of the Congress, and the Vice-Presidents, Secretaries, and members of Councils of the Sections, should be arranged alphabetically.

OFFICERS OF THE CONGRESS.

PRESIDENT.

Austin Flint, M. D., LL. D., New York.

VICE-PRESIDENTS.

W. O. Baldwin, M. D., Alabama.
H. I. Bowditch, M. D., Massachusetts.
William Brodie, M. D., Michigan.
Henry F. Campbell, M. D., Georgia.
W. W. Dawson, M. D., Ohio.
R. Palmer Howard, M. D., Canada.
E. M. Moore, M. D., New York.
Tobias G. Richardson, M. D., Louisiana.
Lewis A. Sayre, M. D., New York.
J. M. Toner, M. D., District of Columbia.
The President of the American Medical Association.
The Surgeon-General of the United States Army.
The Surgeon-General of the United States Navy.
The Supervising Surgeon-General of United States Marine Hospital Service.

SECRETARY-GENERAL.

Nathan S. Davis, M. D., LL. D., Chicago, Illinois.

TREASURER.

E. S. F. Arnold, M. D., F. R. C. S., New York.

CHAIRMAN OF THE FINANCE COMMITTEE.

Frederick S. Dennis, M. D., M. R. C. S., New York.

EXECUTIVE COMMITTEE OF THE CONGRESS.

GENERAL OFFICERS.

Austin Flint, M. D., LL. D., President of the Congress.
Nathan S. Davis, M. D., LL. D., Secretary-General.
E. S. F. Arnold, M. D., M. R. C. S., Treasurer.

Frederick S. Dennis, M. D., M. R. C. S., Chairman of the Finance Committee.

PRESIDENTS OF THE SECTIONS.

A. B. Arnold, M. D., General Medicine.
William T. Briggs, M. D., General Surgery.
Henry H. Smith, M. D., Military and Naval Surgery.
DeLaskie Miller, M. D., Obstetrics.
Robert Battey, M. D., Gynæcology.
F. H. Tirrell, M. D., Therapeutics and Materia Medica.
William H. Pancoast, M. D., Anatomy.
John C. Dalton, M. D., Physiology.
E. O. Shakespeare, M. D., Pathology.
J. Lewis Smith, M. D., Diseases of Children.
A. W. Calhoun, M. D., Ophthalmology.
S. J. Jones, M. D., Otology and Laryngology.
A. R. Robinson, M. D, Dermatology and Syphilis.
Joseph Jones, M. D. Public and International Hygiene.
Henry O. Marcy, M. D., Collective Investigation, Vital Statistics and Climatology.
John P. Gray, M. D., LL. D., Psychological Medicine.
Jonathan Taft, M. D., Dental and Oral Surgery.

LOCAL COMMITTEE OF ARRANGEMENTS.

(WITH POWER TO INCREASE THEIR NUMBER.)

A. Y. P. Garnett, M. D., Chairman, District of Columbia.
The Surgeon-General of the United States Army.
The Surgeon-General of the United States Navy.
The Supervising Surgeon-General of United States Marine Hospital Service.
J. H. Baxter, M. D., District of Columbia.
C. H. A. Kleinschmidt, M. D., District of Columbia.
N. S. Lincoln, M. D., District of Columbia.
J. M. Toner, M. D., District of Columbia, and such additional members of the profession in the District of Columbia as the Executive Committee of the Congress may select.

List of Vice-Presidents, Secretaries and Councillors for each Section were named by the Committee of Arrangements, but as it was not practicable to ascertain at once who would accept the places assigned them, or who of those who had been announced in the medical press as declining to accept positions before the present rules and organization had been adopted, as given heretofore, might wish to withdraw such declination, the final adjustment of these offices was referred to the Executive Committee of the Congress, and all correspondence in relation thereto was transferred to the Secretary-General of the Congress.

On motion, the Committee of Arrangements adjourned, subject to the call of the Chairman of the Committee.

JOHN V. SHOEMAKER, M. D.,
Secretary of the Committee of Arrangements.

CONDENSATIONS.

New Medical Knights.—We learn from the *Lancet* that her majesty has been pleased to confer the dignity of Knighthood upon Drs. Paget and Roberts.

A Sanitary Convention will be held at Howell, Michigan, under the auspices of the State Board of Health, on Wednesday and Thursday, March 3 and 4.

Telephones for the Sick Chamber.—A London firm has devised a telephone by which persons suffering from contagious disorders can safely communicate with their friends.

Small-pox in Vienna.—The *Lancet* publishes the report that a severe epidemic of small-pox is raging at Vienna. It began in the early winter and shows no signs of abatement.

Lady Doctors in Italy.—The first official recognition of female medical practitioners has just been made in Rome. The recipient of this distinction is Signorina Terne, M. D., whom Queen Margherita has appointed one of her physicians inordinary.

Bread for the Scrofulous.—Senna recommends the use of sea-water in making bread for children suffering from scrofulous affections. After the dough is mixed it should be allowed to stand several hours before baking. The taste is said to be disagreeable.

Cremation in Massachusetts.—A society to be known as the Massachusetts Cremation Society has been organized at Worcester, and immediate steps will be taken to erect and put in operation a crematory similar to those in New York and Pennsylvania.

Fracture of Rib Caused by Sneezing.—Dr. Hal. C. Wyman relates in the *Journal of the American Medical Association*, a case of a man aged seventy-two, who fractured his eighth rib during a paroxysm of sneezing. The author attributes the production of the fracture to muscular action.

Marion Sims' Memorial.—The committee appointed to carry out the movement for erecting a suitable memorial to the late eminent gynæcologist, have received eight thousand one hundred and sixty-six dollars. After deducting the necessary incidental expenses, the remaining sum will be sufficient to meet the cost of the bronze statue contemplated by the subscribers.

For Dry Tongue in Fever.—Dr. Colter writes in the *Indian Medical Gazette* that he has had great satisfaction with the use of glycerine painted over the tongue in fevers. It keeps the organ moist and removes the sensation of great thirst and discomfort caused by a dry and foul tongue.

Man Omnivorous.—Professor See says: Man cannot live on meat alone, nor can he live on vegetables alone, consequently the practice of pure vegetarianism is simply impossible, as it is not conducive to robust health, either physically or intellectually. Man is manifestly destined to live on the elements furnished by the three kingdoms of nature.

A New Theory of Asthma.—Dr. M. R. O'Connor, in a letter to the *British Medical Journal*, gives the hypothesis that asthma is due to a reverse action of the cilia which cover the mucous membrane of the bronchial tract; that instead of waving toward the external orifices they wave backward toward the air cells and so obstruct the exit of both air and mucus.

Insanity.—Not considering several large and many small county asylums, there are in the United States, eighty state and forty private institutions for the care of the insane, with a proper capacity for about forty thousand, but containing fifty-three thousand one hundred and ninety-two, leaving forty-five thousand lunatics to be cared for elsewhere. The proportion of insane is greatest in New England, but the increase has been most rapid in the western states.

The Diagnosis of Lead Poisoning.—Dr. Dumoulile recently presented to the Royal Academy of Medicine of Belgium a patient suffering from chronic lead poisoning, upon whom he demonstrated a chemical test for this condition. The man's skin became black wherever it was moistened with a solution of sulphide of sodium or of sulphohydrate of ammonia. This, the speaker stated, supported the view of Perein, that lead was eliminated by the skin, and also offered a more certain means of diagnosis than did the blue line on the gums.

Postmortem Muscular Movements.—At a recent meeting of the Biological Society of Paris, M. Brown-Sequard related some experiments he had made, by means of a special instrument, to determine the movements of single muscles in the body after death. He had found that there was a very considerable degree of contraction and relaxation, as much, for example, as two and a half millimeters in a muscle measuring only six millimeters in length. He thought that the results of his experiments disproved the theory of coagulation in the muscular tissue as a cause of cadaveric rigidity.

MR. ENDE NOT GUILTY.—Mr. Am Ende, the Hoboken druggist, who some months since caused the death of two young ladies by dispensing morphine for quinine, was recently tried for manslaughter. The jury after deliberating upon the case for an hour and a half, brought in a verdict of not guilty. The high standing of the author of this fatal blunder, and the intense mental suffering which he has undergone since the accident, made a strong sympathy in his favor. While legally guilty, the action of the jury in refusing to inflict upon him the penalty due to manslaughter, will not be condemned.

ICE SKATING.—This, the most exhilerating of all exercises, has lost much of its popularity, since the "roller epidemic" swept over this country. Skating is beyond question, the finest sport, in which ladies can indulge. To the body it is stimulating and healthful, to the mind buoyant and intoxicating. It produces a gracefulness that is only attained through the faculty of being able to balance the body upon one limb, while in motion, and at the same time, having the action of different groups of muscles under the control of the will. In skating, there is a degree of muscle training that cannot be obtained in any other exercise. The most perfect control must be held over the muscles of trunk and lower extremity, in order to skate gracefully, which is rightly regarded as a very high accomplishment.

EVOLUTION IN MEDICINE.—The growth and improvement made in the science of medicine has been a steady progress from year to year for the last half century. It has transformed the physician's art, and through privation, alone, has contributed largely to diminish the weight of human misery and disease. The retrospect for any one year shows this, but to trace the upward course from year to year, to lay a finger upon this fact or that, and say here is something known now, but not known a year ago, is less convincing than the recitals made by veteran physicians, who can look back and review several decades. "The science and art of medicine does not advance by leaps and bounds, but by a slow power of accretion strictly analogous to organic growth. The tendency of medicine in this generation is primarily toward analysis; the analytical method has been applied to every department, and a minute accuracy and precision of observation has been cultivated."

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES for January contains the following valuable original articles: Modern Medicine of the English-speaking Race, by Sir Henry Acland, K. C. B., F. R. S.; The Mitral Cardiac Murmurs, by Austin Flint, M. D.; Imperfect Symmetry, by Sir James Paget, Bart., F. R. S.; The Production of the so-called "Rose Cold," by means of an

Artificial Rose, with Remarks and Historical Notes, by John Noland Mackenzie, M. D.; Mitral Stenosis, by W. H. Broadbent, M. D., F. R. C. P.; Affections of the Eye Accompanying Mumps, by Swan M. Burnett, M. D.; On Recent Gynæcology, by J. Matthews Duncan, M. D., F. R. S.; On the Dilatation and Hypertrophy of the Heart which are not Produced by Changes in the Valves, by Francis Delafield, M. D.; Some Observations on the Theory of Bronchial Asthma, viewed in the light of the Pathology of Hay Fever, by Sir Andrew Clark, Bart., M. D., LL. D., F. R. S.; Kolpohysterectomy for Cancer, with Tables comparing its Methods and Results, by Sara E. Post, M. D.: Primary Sarcoma of the Right Kidney, by Walter G. Smith, M. D.; Successful Resection of Intistine in a Case of Strangulated Femoral Hernia, by J. Clark Stenard, M. D.; A Case of Dissecting Aneurism of the Thoracic and Abdominal Aorta, by James E. Graham, M. D.; Notes toward the Formation of Clinical Groups of Tumors, by Jonathan Hutchinson, F. R. S.; Aneurism of the Ascending Aorta, Perforating the Chest-wall, and forming an Enormous External Pulsating Tumor in the Right Pectoral Region,—Treatment by Electrolysis, followed by Arrest of Growth, Death, Necropsy, by J. C. Wilson, M. D.; Treatment of Intestinal Obstruction by the Force Pump, by H. Illoway, M. D.

WYETH'S VACCINE FARM.—In our January number reference was made to the bovine virus produced by Wyeth & Brother at their "farm," which the *Medical and Surgical Reporter* thus describes: Near Westtown, in Chester county, the enterprising firm of John Wyeth & Brother have started a model farm. It was recently inspected by a delegation of physicians, including several members of the State Board of Health, who found everything to praise and nothing to censure. It is truly a model farm, designed after a personal inspection of the famous vaccine farms of Europe, and combining in itself the good points of all of them. The operating-room and the stables are finished in hard wood, have asphalt floors, abundance of ventilation, and are flooded with light, so that they not only present a handsome appearance to the eye, but possess every sanitary requirement. The inoculation of the heifers is done by Dr. Zuill, one of the faculty of the Veterinary Department of the University of Pennsylvania, thus insuring the fact that the virus is taken only from heifers that actually have cow-pox. The animal (from seven to eighteen months of age) is fastened (on its back), its belly closely shaved, and inoculated in thirty or forty places. After nine or ten days, if it has had an elevation of temperature, increase of pulse, and the formation of secondary umbilicated pustules (that is to say, elsewhere than where it has been inoculated), the scab is removed from the inoculation and ivory points coated with the lymph, as it flows *spontaneously*, care being exercised not to take the flow that can be excited by rubbing the sore with a coarse rag, for this would give us serum and not true lymph. From each heifer as many, sometimes, as two thousand points can be coated, and as the farm has ample accommodation for seventy animals, we can readily see that this firm possesses facilities for supplying a very great demand. It is also to be noted that the points are guaranteed for three weeks.

NEW PUBLICATIONS.

A SYSTEM OF PRACTICAL MEDICINE, BY AMERICAN AUTHORS. Edited by William Pepper, M. D., LL D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania: Assisted by Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume II. 8mo: one thousand three hundred and twelve pages. Illustrated. Philadelphia: Lea Brothers & Company, 1885.

In Volume II of this comprehensive work, the publication of which marks an epoch in the history of American medical literature, is completed the subject ot GENERAL DISEASES, and is considered the Diseases of the Digestive System. The scope in the vast field of medicine filled by this volume can be best seen in the following table of contents:

General Diseases.—Rheumatism, by R. Palmer Howard. M. D.; Gout, by W. H. Draper, M. D.; Rachitis, by Abraham Jacobi, M. D.; Scurvy, by Philip S. Wales, M. D.; Purpura, by I. Edmonson Atkinson, M. D.; Diabetes Mellitus, by James Tyson, A. M., M. D.; Scrofula, by John S. Lynch, M. D.; Hereditary Syphilis, by J. William White, M. D. *Diseases of the Digestive System.*—Diseases of the Mouth and Tongue, by J. Solis Cohen, M. D.; Diseases of the Tonsils, by J. Solis Cohen, M. D.; Diseases of the Pharynx, by J. Solis Cohen, M. D.; Diseases of the Œsophagus, by J. Solis Cohen, M. D.; Functional and Inflammatory Diseases of the Stomach, by Samuel G. Armour, M. D., LL D.; Simple Ulcer of the Stomach, by W. H. Welch, M. D.; Hæmorrhage from the Stomach, by W. H. Welch, M. D.; Dilatation of the Stomach, by W. H. Welch, M. D.; Minor Organic Affections of the Stomach (Cirrhosis, Hypertrophic Stenosis of Pylorus, Atrophy, Anomalies in the Forms and in the Position of the Stomach, Rupture, Gastromalacia), by W. H. Welch, M. D.; Intestinal Indigestion, by W. W. Johnston. M. D.; Constipation, by W. W. Johnston, M. D.; Entralgia (Intestinal Colic), by W. W. Johnston, M. D.; Acute Intestinal Catarrh (Duodenitis, Jejunitis, Ileitis, Colitis, Proctitis). by W. W. Johnston, M. D.; Chronic Intestinal Catarrh, by W. W. Johnston, M. D.; Cholera Morbus, by W. W. Johnston, M. D.; Intestinal Affections of Children in Hot Weather, by J. Lewis Smith, M. D.; Pseudo-Membranous

Enteritis, by Philip S. Wales, M. D.; Dysentery, by James T. Whittaker, A. M., M. D.; Typhilitis, Perityphilitis, and Paratyphilitis, by James T. Whittaker, A. M., M. D.; Intestinal Ulcer, by James T. Whittaker, A. M., M. D.; Hæmorrhage of the Bowels, by James T. Whittaker, A. M., M. D.; Intestinal Obstruction, by Hunter McGuire, M. D.; Cancer and Lardaceous Degeneration of the Intestines, by I. Edmonson Atkinson, M. D.; Diseases of the Rectum and Anus, by Thomas G. Morton, M. D., and Henry M. Wetherill, Jr., M. G., Ph. G.; Intestinal Worms, by Joseph Leidy, M. D., LL. D.; Diseases of the Liver, by Robert Bartholow, A. M., M. D.; Diseases of the Pancreas, by Louis Starr, M. D.; Peritonitis, by Alonzo Clark, M. D., LL. D.; Diseases of the Abdominal Glands (Tabes Mesenterica), by Samuel C. Busey, M. D.

The subject of rheumatism and its complications is dealt with in a very candid manner. The pathology of the acute form of articular rheumatism, continues a much debated question, and the author withholds any individual views of his own, but submits in a clear way the most prominent theories now held by different pathologists, and in a brief manner discusses them. The latest modification of the lactic-acid theory of Prout is not regarded as sufficient; a considerable excess of lactic acid has not been sufficiently proven to exist in the body or in the excretions in rheumatism, nor is it the only principle retained when the functions of the skin are arrested by cold. Latham's hypothesis that hyperoxidation of the muscular tissue is the starting point of acute rheumatism, meets with two objections. (1) The existence of a chemical inhibitory center has not been proven; (2) The more recent investigations of Luntz show that in all febrile affections it is the muscles chiefly, if not solely, which suffer increased oxidation, and that this is due to increased inervation. The nervous theory which originated with Dr. J. K. Mitchell, and elaborated by others, but more recently by Wier Mitchell and Charcot, makes rheumatism a functional disturbance, and according to Mr. Jonathan Hutchinson, one of the latest and ablest advocates of the neurosal theory, it is "a catarrhal neurosis, the exposure of some tract of skin or mucous membrane to cold or irritation acting as the incident excitor influence." To this view Dr. Howard asks: "But is there nothing more in acute articular rheumatism than an inflammation of certain structures, articular and visceral, lighted up in an individual of a neuro-arthritic diathesis?" and adds, "May we not from analogy, as well as from evidence, infer that in that so-called other neurosis, rheumatism, a considerable part of the phenomena is due to perversions of the processes of assimilation and excretion, and to the presence of some unknown intermediate product of destructive metamorphosis—lactic or other acid?" The miasmatic theory, advocated by Maclagen, and Hunter's infective-germ theory, which refer rheumatism to a principle not generated in the system, but introduced from without, receive due attention.

Professor James Tyson, of the University of Pennsylvania, furnishes the article on *Diabetes Mellitus*, and in a most admirable and able manner discusses the disease in all its bearings. Under its pathology and pathogenesis the effects of irritating the so-called diabetic area of the medulla oblongata, and the stimulation of the pneumogastric nerve, are traced through their various and complex connections and distribution. The many artificial circumstances and natural processes capable of producing glycosuria are detailed, from which it is made evident that an agency involving any part of the glycogenic tract, in such a way as to paralyze the vaso-motor nerves of the liver is capable of producing glycosuria. "Such causes may operate upon the central ganglia whence the nerves emanate, as the vicinity of the oblongata and upper parts of the spinal cord, or the cœliæ ganglia and its branches, including those of the pancreas. Or the irritation may be peripheral and its effects reflex. We have seen that irritation of the central end of the cut vagus will produce glycosuria. Any irritation, therefore, involving the peripheral distribution of this nerve may produce it. Hence, embarrassed respiration, whether due to disease of the respiratory passages, strangulation, or inhalation of irrespirable gases and anæsthetics, produce glycosuria in dogs and rabbits, and this symptom has been known to attend these conditions in the human subject. So, too, glycosuria may be produced by such substances as woorara, strychnia, morphia, and phosphoric acid introduced into the blood and irritating the terminal filaments of the pneumogastris, or it may be brought about secondarily through the embarrassed respiration these drugs produce. Such peripheral irritations may reside also in the stomach, intestines, liver or any organ to which the pneumogastric is distributed." But this does not limit the source of irritation, for irritation of extremities of other sensory nerves may become the cause of reflex glycosuria. By reflex action this symptom is produced experimentally, by injury to the cerebral lobes and cerebellum, optic thalami, cerebral peduncles, pons varolii, middle cerebellar peduncles, and even of the sciatic nerve and brachial plexus; hence pathological irritation in the same situation, either permanent or temporary, may produce permanent or temporary glycosuria. The author goes further, and permits the origination of inhibitory reflex action in the sympathetic itself. This being the case, glycogenic phenomena need not be ascribed to a direct irritation of the vaso-motor nerve of the liver, but to a sensory influence ascending one set of sympathetic filaments and an inhibitory influence descending through another. From this Professor Tyson concludes that there is scarcely an organ in close relation with the sympathetic system, derangement of which is not capable of producing the glycogenic symptom. That part of his article which relates to the diagnosis, including the tests for sugar in the urine, is freely considered. The treatment is divided with dietetic, the medicinal and the hygienic. The first is regarded by far the most important. Here explicit instruction is given. Such articles of food and drink that are admissible are classified and enumerated, and bills of fare are itemized. The dietetic treatment, and especially the "skim-milk treatment" is regarded of itself sufficient to control, if not to cure, a large number of cases, yet in many cases it is insufficient, and in others impossible to carry out. In such the *medicinal* treatment must be combined with the dietetic. Codeia, first suggested by Pavy, is, upon extended trial, regarded the most efficient remedy. Ergot, to which the preference was formerly given, is now regarded second in efficiency. Bromarsen or bromide of arsenic has not given the results claimed for it by Clemens. Arsenic, strychnia, and iodide of potassium have been found beneficial.

The articles on the upper portions of the respiratory and alimentary tracts, from the pen of J. Solis Cohen, carefully discuss the many affections of these regions. The pathology and morbid anatomy of each disease is fully considered. *Stomatitis parasitica* correctly names and identifies one of the several varieties of stomatitis, formerly considered one disease—*thrush.* We doubt if Dr. Cohen has omitted any known medical affection of these parts, so numerous are the diseases described; but we look in vain for any new method of treating those obstinate chronic disease of the pharynx and œsophagus.

The limited space of this journal will not admit of the analysis of each article, but in closing it is only justice to say, that the excellence of each article warrants the statement that: without exception, they are not excelled, if equaled by the best contributions found in any language on the same subjects.

OPERATIVE SURGERY. A Manual by Lewis A. Stimson, B. A., M D., Surgeon to the Presbyterian and Bellevue Hospitals; Professor of Clinical Surgery in the Medical Faculty of the University of the City of New York; Corresponding member of the Société de Chirurgie of Paris. Second edition, with three hundred and forty-two illustrations. Royal 12mo: five hundred and six pages. Cloth, $2.50. Philadelphia: Lea Brothers and Company, 1885

The first edition of this valuable manual appeared in 1878, and immediately became popular with student and practitioner, because of its completeness as regards the number of operations illustrated and described, and the correctness of the illustration, and clearness of the descriptions.

The second edition has been prepared to meet "the changes that have been effected in operative methods and procedure by the adoption of the antiseptic method of treating wounds, and to describe such additions as have been favorably received and can be systematically presented."

The chief alterations and additions appear in those parts of the work appertaining to the excision of joints and bones, operations upon the perineum, and the surgery in which the peritoneal cavity is opened.

BOOKS AND PAMPHLETS RECEIVED.

TEMPERANCE SCHOOL BOOKS. By Henry Leffman, M. D. Reprinted from the *Polyclinic*, October 15, 1885.

PUERPERAL CONVALESCENCE AND THE DISEASES OF THE PUERPERAL PERIOD. By Joseph Kucher, M. D. 12mo: three-hundred and twelve pages. New York: J. H. Vail & Company, 1886.

HYDRONAPHTHOL: A NEW ANTISEPTIC. By George R Fowler, M. D., Surgeon to Saint Mary's General Hospital, Brooklyn. Reprinted from the *New York Medical Journal* for October 3, 10, 24, and December 5, 1885.

MEDICAL EDUCATION AND MEDICAL COLLEGES IN THE UNITED STATES AND CANADA, 1765 to 1885. Illinois State Board of Health. Springfield, Illinois: H. W. Rockker, State Printer and Binder, 1885.

AN EXPERIMENTAL AND CLINICAL STUDY OF AIR-EMBOLISM. By N. Senn, M. D., of Milwaukee, Wisconsin, Attending Surgeon to the Milwaukee Hospital; Professor of the Principles and Practice of Surgery and Clinical Surgery in the College of Physicians and Surgeons, Chicago, Illinois. Extracted from the "Transactions of the American Surgical Association," Volume III, 1885. Philadelphia: Collins, Printer, 1885.

DIPHTHERIA AND ITS MANAGEMENT. Are Membraneous Croup and Diphtheria Distinct Diseases? By Joseph E. Winters, M. D., Clinical Professor of Diseases of Children in the University of the City of New York. Read before the Section of Obstetrics and Diseases of Women and Children, New York Academy of Medicine, November 25, 1885. Reprinted from the *Medical Record*, December 5, 1885. New York: Trow's Printing and Bookbinding Company, 1885.

A MANUAL OF AUSCULTATION AND PERCUSSION, EMBRACING THE PHYSICAL DIAGNOSIS OF DISEASES OF THE LUNGS AND HEART AND OF THORACIC ANEURISM. By Austin Flint, M. D., LL D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., etc. Fourth edition, thoroughly revised and enlarged. Illustrated with fourteen wood cuts. 12mo: two-hundred and eighty pages. Cloth, $2.50. Philadelphia: Lea Brothers & Company, 1885.

PSYCHIATRY: A Clinical Treatise on Diseases of the Fore Brain, based upon a study of its Structure, Functions and Nutrition. By Theodor Meynert, M. D., Professor of Nervous Diseases and Chief of the Psychiatric Clinic in Vienna. Translated (under authority of the author) by B Sachs, M. D., Instructor in Diseases of the Mind and Nervous System in the New York Polyclinic. Part I: The Anatomy, Physiology, and Chemistry of the Brain. 8mo: two hundred and eighty-five pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1885.

MEDICAL DIGEST.

VULVAR AND VAGINAL ENTEROCELE.

Dr. T. Gaillard Thomas, Surgeon to the New York State Woman's Hospital, read a paper on this subject, December 17, before the New York Academy of Medicine, which appeared in the *New York Medical Journal*, December 26, 1885. He says there are five varieties of hernia which may show themselves in the vagina and vulva: (1) Cystocele, or hernia of the bladder. (2) Rectocele, or hernia of the anterior wall of the rectum. (3) Vaginal enterocele, or descent of a portion of the small intestines into the vagina. (4) Pudendal enterocele, pudendal hernia, or descent of the small intestines into the labium majus of one or both sides. And (5) Perineal enterocele, perineal hernia, or descent of the small intestines through the perineum.

Other varieties might be given, based upon the contents of these hernial sacs, in which the ovaries, the uterus, and the Fallopian tubes, either empty or filled with the products of conception, have been found; or upon some extremely rare development of this condition—such as a case quoted by Sir Astley Cooper, in which the base of the bladder, passing down alongside the right wall of the vagina, formed a hernia in the labium majus of that side. But Dr. Thomas confines his remarks to the descent of the intestines through the pelvic roof, and their protrusion into the labia majora, into the vagina, or through the perineum.

Although these varieties of hernia have been known for a century and more, they have generally been ignored in systematic treatises. A. Martin, Hart and Barbour, and Emmet, do not mention vaginal and vulvar enterocele; Barnes and Edis make a mere mention, and Courty and Thomas give very short and unsatisfactory accounts. Even in literature, of serial character, it is difficult to find much upon the subject. In 1736, Garengeot first described this form of hernia; he was followed by Verdier, Hain, Sandifort, and Richter. Sir Astley Cooper treated of it fully in 1804. The best account of it is by A. Berard, in the "Dictionnaire de Medecine," published in 1846. Peter Young, of Edinburgh, published a paper upon the subject in the *Edinburgh Medical Journal*, April, 1882, and recorded a striking case which illustrates most of the important features of the lesion when occurring during parturition, and soon after it. In the "Transactions of the New York Obstetrical Society" for 1878 will be found a very able and exhaustive article by Fordyce Barker, containing several cases occurring during pregnancy and parturition, and a case reported by Dr. B. A. Clements, of the United States Army, in which eight distinct attacks occurred.

Vaginal Enterocele.—This variety consists in a descent of the intestines into the pelvic cavity, either in front of or posterior to the broad ligament of one side. The intestines never descend directly in the median line, either anteriorly or posteriorly, on account of the intimate relations of the vagina at these points; they always descend a little obliquely, and most frequently posteriorly. Usually the intestines alone descend, but sometimes the omentum accompanies them; and Petrunti has reported one case in which the hernial tumor consisted of nothing but omentum. Usually the small intestines form the hernial protrusion, but Levret has put one case on record in which the sigmoid flexure of the colon did so, and Boivin and Duges mention one in which a portion of the large intestines came down as low as the perineum, and obstructed the vagina.

Vaginal hernia, as a rule, develops itself in the following manner: A loop of intestine gradually pushes downward the prolongation of the peritoneum, which forms the pouch of Douglas, until it impinges upon the outside of the wall of the vagina, and causes it to arch inward. This mechanical influence being continued and gradually increased, a tumor forms in the vaginal canal, inverts one wall of that canal more and more completely, and may end by escaping from the vulva and hanging outside the body, as a complete prolapse of the bladder or of the uterus would do. Under these circumstances, the tumor which protrudes has for its component parts the inverted vaginal wall, the peritoneum, and the intestines. Sir A. Cooper says: "I have had no opportunity of examining this disease in the dead body." Berard, about 1840, declared that it is very important to know whether "the entire thickness of the vaginal wall is inverted and forms the envelope of the tumor, or if the external coat is torn so as to present an opening through which the hernia passes, carrying before it only the internal tunic of the vagina," and asserts that at that time Sandifort was the only author who had reported an autopsy, and that he had neglected to mention this point. I find reports of several autopsies, and yet this point still remains unsettled.

Unquestionably, the greatest danger which attends this form of hernia (and the same remark applies to the two other varieties, which we shall consider) arises from the possibility of an error of diagnosis occurring from the practitioner being off his guard, and therefore not sufficiently careful in the practice of differential diagnosis. The tumor occurring during labor, and obstructing the progress of the fœtal head, a too rapid conclusion may be arrived at that an ovarian, or parovarian cyst with a long pedicle, has been pushed into the pelvis, a trocar and canula are plunged in, and the operator is horrified at the escape of fæcal matter and intestinal gases; or, if in the non-parturient woman, an effort is made to remove it, and, as this effort advances, the operator becomes painfully enlightened as to his error. Let me quote two cases to impress this important fact. The following is related in the *Centralblatt fur Chirurgie*, May, 1879: The woman, aged fifty-two, had had twelve children, the last born twelve years before. A swelling, about three inches long, reddish-blue in color, and covered by granulations and pus, protruded between the labia. A diagnosis of polypus of the uterus was made and the tumor removed. After suffering severe pain in the abdominal region for several hours, death ensued. Upon autopsy, there was found in the pelvis half a pound of liquid blood. A portion of the great omentum and a piece of the transverse colon had been cut away in the mass. In the posterior wall of the vagina there was an opening about five centimetres in diameter. Gunz relates the following: A woman had a tumor occupying one wall of the vagina and presenting at the vulva. A surgeon, mistaking it for an abscess, plunged a bistoury into it; intestines protruded, and the patient died of gangrene.

The most frequent *cause* of the varieties we are considering is parturition. Under the influence of utero-gestation, all the pelvic tissues are greatly hypertrophied and relaxed, and, under the violent effort of child expulsion, the relaxed parts are strained by pressure from the intestines, which are forced down upon them. Nevertheless, some of the most striking cases of the accident have occurred in nulliparous women. These are usually due to violent efforts, falls, and the previous existence of pelvic tumors, which have burst or been removed.

Vaginal hernia, so long as it remains in the pelvic cavity, and does not interfere with parturition, is usually of little moment and of little inconvenience. It is not prone to undergo strangulation, for the reason that the peritoneal protrusion, having no neck, constriction does not often occur. Under certain malign influences, however, occurring during parturition, as well as in the non-parturient state—such as pressure from the fœtal head, inflammatory processes, fæcal impaction, torsion of the contents of the sac, or the existence of a neoplasm—strangulation may occur.

The *symptoms* apt to develop are difficulty in locomotion, pelvic tenesmus, or "bearing down," colicky pains, dragging sensations, tendency to constipation, and, in time, vomiting. Should the accident complicate parturition, obstructed labor is apt to result.

Upon vaginal examination, a tumor is found in the vagina, and is diagnosticated by the following physical sign: It is supple, soft, and yielding; decreases upon pressure; gives a sense of gurgling to the finger, if not to the ear; increases upon the patient's coughing or straining; yields resonance upon percussion, and is very generally reducible if the patient be placed in the knee-chest position, and efficient taxis be practiced.

Vaginal enterocele may be confounded with the following conditions: Prolapse of vagina, uterus, bladder, or rectum, or a combination of these displacements; with vaginal cyst, parovarian, or ovarian cyst; with a fibrous tumor presenting low down in the pelvis; with a "cold abscess" of the pelvis; or with a marked case of tubal dropsy.

It will be seen that the behavior of a true enterocele of the vagina under pressure differs very much from that which would characterize the pathological conditions just mentioned.

Why is such caution inculcated with reference to the possibility of erroneous diagnosis? Because error creeps in from the practitioner being off his guard, and too little inclined to consider the possibility of a mistake. If he approaches these cases philosophically, and in a proper spirit of diagnostic investigation, it is very improbable that an erroneous diagnosis will occur. Most cases present striking features.

Sir Astley Cooper's description of a case, occurring posterior to the broad ligament, seen by him, is graphic. The patient was a young woman, aged twenty years, who had never had children, and whose case was worth examination on account of a tumor projecting into the vagina. She was placed in a recumbent posture, with the shoulders a little elevated. On examination *per vaginam*, there was a swelling a little above the os externum vaginæ, the size of a small billiard-ball, situated at the posterior part of the vagina, but rather to the left side; it was elastic, and not at all painful to the touch. When compressed, it readily passed away, but, upon directing her to cough, it was reproduced. When on her knees, the swelling became very tense, and much larger than before, and when she coughed, it dilated as any other hernia, but more forcibly. Having placed her again in the recumbent posture, he pressed the swelling entirely away by keeping the fingers about half a minute on the posterior part of the vagina, and then carrying the fingers higher up in the vagina, above the seat of the tumor, near to the os uteri; and having pushed the vagina toward the rectum, he directed her to cough, and the tumor was not reproduced. Still pressing at the same part, he desired her to rise, and so long as the pressure was sustained the hernia did not return, but almost immediately as the fingers were removed, the hernia became as large as before.

Like hernia occurring elsewhere, those forms which we are now considering may show themselves in two ways:—first, by a brusque and sudden development marked by alarming and decided symptoms; and secondly, by a development so gradual and uneventful as to symptoms, as to escape recognition entirely until the mere mechanical results of the hernial tumor force themselves upon the attention of patient or physician. A striking illustration of the former is given by Dr. Young, in which all the symptoms of incarceration of the intestines rapidly and unmistakably showed themselves to be entirely relieved by successful taxis.

In certain very rare cases acute vaginal hernia occurs as a consequence of some traumatic influence destroying the continuity of this canal in its upper part. A striking instance is reported in *La France Medicale*, November, 1881. The patient, three months pregnant, endeavored to bring on abortion by vaginal injections. One of these was immediately followed by violent colic, and in a few days after by abundant hæmorrhage, which continued for several days. At that time a loop of intestines escaped from the vulva, which could readily be returned to the abdomen, but would at once prolapse. On the day after this occurrence, the cæcum made its appearance, as evidenced by the presence of the vermiform appendix. In time this proved to be irreducible, and gangrene occurred, followed by escape of fæcal matter. During the progress of this condition abortion took place. In time the vaginal opening of the intestines closed entirely, fæcal matters passed normally, and the patient made not only a complete, but a rapid recovery.

Some years ago Dr. Thomas consulted two physicians in a case of interstitial pregnancy to decide the question of laparotomy. One of these gentlemen refused to express an opinion until he had had the privilege of passing the entire hand into the vagina. He anæsthetized the patient, and his desire was fulfilled. As he withdrew his hand, however, a loop of intestine escaped from the vulva through a laceration which he had made in the upper part of the vaginal canal. He at once put the patient in Sims' position, introduced a speculum, and sewed up the rent. The patient recovered.

He once saw a similar hernia follow an attempt to replace a retroflexed uterus by a sponge probang in the hands of a most cautious gynæcologist. As the retroflexed fundus was pressed upon, the sponge suddenly burst through the vagina into the peritoneal cavity, and being withdrawn, came forth entangled in a loop of small intestines. The examiner at once sewed up the opening with a silver wire, and the patient recovered.

It is in the gradually developing, creeping, insidious cases that the danger of erroneous diagnosis lies in ambush for the unwary surgeon.

PUDENDAL ENTEROCELE, or PUDENDAL HERNIA, demonstrates its existence by an elastic tumor, about as large as a small hen's egg, or a pigeon's egg, about the middle of the labium majus of one side. It may originate in two ways. The round ligament of the female, after passing down through the inguinal canals, lose themselves in two glove finger prolongations of fibrous character, which run down through the labia majora. Following the course of these ligaments through the abdominal rings and the inguinal canal, the intestines sometimes descend, as they do in the male, along the spermatic cord in getting to the scrotum, and reach their ultimate point of descent in these dartoid sacs. Again, they sometimes pass downward between the vagina and the ramus of the ischium, thus reaching the labium majus from within the pelvis. In its commencement the latter variety resembles exactly vaginal hernia; but instead of inverting the vagina before it, as that does, it separates the vaginal wall from the ischium, and insinuates itself between these parts.

Some French writers divide hernia of the labia majora, or pudendal interocele, into two varieties:—first, "anterior labial hernia," or that which eventuates from the inguinal form; and, second, "posterior labial hernia, or labio-vaginal hernia," or hernia forming by extension of the peritoneum down in front of the broad ligament and alongside the vagina to the vulva.

From inguinal hernia ending by descent in the labium majus the internal variety may be thus distinguished: (1) the finger, pushing the tumor upward, will pass into the pelvic cavity between the ischium and vagina; (2) at the level of the os uteri, or thereabouts, it will enter the pelvic roof; and, (3) pressure being maintained on the inguinal canal, and the patient being ordered to cough, it will, in spite of the pressure, recur.

In *diagnosis* the following conditions of the labia majora may be confounded with pudendal hernia: Cyst or abscess of the vulvo-vaginal gland; Cyst of the labium minus, or majus; Abscess of the labium majus; Fatty or fibrous tumor of the labium; Tumors descending from the pelvic cavity.

Dr. Galabin reports ("Transactions Obstetric Society, London," 1884) what he believes to be a hydrocele, an egg-shaped cyst, two inches and a half long, translucent, occupying the labium majus. It had existed three years in a patient aged fourteen, been tapped once, and a straw-colored fluid removed. Dr. Galabin divided the skin on a director, and found a cyst free except at the anterior end toward the inguinal ring, where a firm cord was divided. The patient recovered.

Saenger (*Arch. fur Gynækologie*, Volume XVI) reports two cases in which the contents of labial herniæ were found to be tumors of the broad ligaments. In one case, reported by Hecker, the woman, aged forty, had noticed since childhood a tumor situated in the right labium majus. This mass, formerly easily returned into the abdomen, was at the time of operation irreducible. An incision was made over the tumor, which was found to be a myoma of the ligamentum rotundum; weight, three hundred and thirty grammes. Paletta reports a case which was similar, a fibro-myoma of the round ligament being found as the contents of a labial hernia.

The *differentiation* of pudendal hernia from these conditions of the labia should be very carefully considered, for, if an erroneous diagnosis be made here, a fatal result might very probably prove the consequence. The diagnostic signs which may almost be styled pathognomonic, are these: Airy feeling upon palpation, gurgling upon replacement, diminished tension in the dorsal decubitus, diminution of bulk upon taxis, resonance upon percussion, succussion upon coughing, and intestinal pains of a colicky character.

There are no very great difficulties attending the differentiation of the disease. The danger is that the possibility of hernia at this point may be forgotten, and deductions drawn without considering it. Although the probability of error be not great, the appalling nature of the accident in which it would result warrants the relation of the following case, which is illustrative of its possibility: A patient had had an abscess just below the external abdominal ring, which, after poulticing, had been evacuated about a month before the time of her visit to me. After this she had felt well until a week before, when, after a muscular effort, the pain had returned with all the original signs of abscess, and these had continued, although she had painted the part steadily with tincture of iodine. Dr. Thomas examined the enlargement while the patient was standing, and, under a recent cicatrix which was painted with iodine, discovered what he supposed to be a reaccumulation of pus. As the patient came merely for the evacuation of this, I placed her in the recumbent posture, and, lance in hand, proceeded to operate. But he discovered that change of posture diminished the size of the enlargement. This excited suspicions, and, upon further examination, we found that a recent hernia had occurred under the old cicatrix.

Perineal Hernia may affect both male and female. In the latter it consists of the descent of the intestines between the vagina and rectum, the advance being made posterior to the broad ligament, and continuing until the perineal muscles are forced apart, and the gut, with its peritoneal envelope, is arrested by the skin. In these cases Sir Astley Cooper declares that the hernial sac "protrudes as far as the skin of the perineum, but does not project it so as to form an external tumor; its existence in the male can be only ascertained during life by an examination by the rectum; but in the female it may be felt both by the rectum and by the vagina. The sac lies between these two canals."

All these varieties of hernia are usually readily amenable to taxis, and this he has invariably found greatly facilitated by the knee-chest, or genu-pectoral, position. In some rare cases strangulation occurs. Under these circumstances the same surgical practice is indicated as in inguinal or crural hernia—namely, cautious opening of the sac and section of the constricting band by passing up a probe-pointed bistoury.

Dr. Thomas next records a remarkable case of extreme vaginal hernia, which presents some features which he has never met with in literature.

Mrs. K., a multipara of small figure and spare habit, thirty-nine years of age, about six years ago noticed a lump at the vulva, and she began to suffer from difficulty in locomotion, frequent micturition, painful defecation, dragging in the back and loins, colicky pains in the bowels, and general nervousness and malaise. During the past six years this tumor has steadily increased in size, until it had come down to the middle of the thigh on the right side. She was greatly emaciated, and suffered so much from the symptoms that she felt that any resource which held out the prospect of even partial relief would be a boon. While the tumor hung out of the pelvis, she could neither stand, walk, nor sit with any comfort, and when by taxis it was restored to the pelvis, she found it so very difficult and painful to empty the bladder and rectum that she was compelled voluntarily to force it out again.

Upon physical examination, as the patient lay upon the back, he discovered a large pinkish-colored tumor hanging from the vulva, presenting all the gross appearances of a huge cystocele. On minute examination it became evident that this superficial impression was entirely erroneous. The index finger being passed around the tumor and up the vagina, the tumor was found to be attached to the ischium on the right side of the vulva, so that there was no vaginal space there at all, while on the left side it passed up readily and discovered the uterus almost out of reach in the left side of the pelvis. A catheter being passed into the bladder, that viscus was found high up above the pubes and obliquely in front of the uterus.

Taxis being practiced in the knee-chest position, the tumor disappeared with a very slight gurgle, its contents evidently retreating into the pelvis through an opening on the right side. Once only in manipulating the mass did a slight gurgle sound and make itself manifest; resonance upon percussion did not appear distinctly, and yet there could be no doubt that hernia did exist. After the contents of the sac were returned to the abdomen it was evident that their retention there, or even the retention of the sac itself within the pelvis, would prove impossible by any mechanical contrivance which could be devised, for two reasons—first, the great weight of the mass; and, second, the fact that pressure of it against the bladder and rectum when it was returned to the body interfered so greatly with the functions of these viscera as to render the patient utterly uncomfortable. And yet the deplorable condition of the patient and her great mental and bodily distress urgently called for active interference. She had been discouraged from seeking surgical relief, while lesser methods had failed to give her aid, and now both she and her husband were willing to adopt any plan which held out the least hope.

Dr. Thomas performed laparotomy; caused an assistant to keep the hernial sac well within the pelvis by one hand in the vagina; pull all the contents out of the sac; seize this at its most dependent portion, drag it up into the abdominal wound and fasten it there by suture, sustaining the heavy sac, meanwhile, by two knitting-needles passed through and lying flat across the abdomen. They eagerly accepted the proposal.

Dr. Emmet and Dr. Bozeman agreed in the diagnosis, and endorsed the operation proposed.

Upon cutting through the abdominal wall, after an assistant had pushed the hernial mass back into the pelvis, he found in the pelvis a soft, fibrous tumor, which had evidently been pushed up from below, on a level with the symphysis pubis. It was very movable, covered by peritoneum, disconnected with the uterus, and, upon careful examination, proved to have no connection with the bladder. He was at a loss to determine its relations, but in view of the desperate character of the case, decided at once to remove it by splitting the peritoneal covering, tying a number of bleeding vessels, draining the sac with a glass tube, and fastening the sac into the abdominal wound. The patient made a good recovery, and so far, more than a month having now passed since the operation, has continued to be free from any return of the hernia. He feels apprehensive about the future, but the present is quite gratifying and completely satisfactory.

His explanation of the case is this: This very movable tumor, which appeared to have no fixed anchorage in the pelvis, had originally pushed the vagina before it by entering the pelvic cavity behind the broad ligament of the right side; the intestines had pressed down upon this, and together they had made up the contents of the sac. Dr. H C. Coe, the pathologist of the Woman's Hospital, has furnished me the following report of his examination of it:

"*Gross Appearance.*—A soft, shapeless mass of tissue, which bears a certain resemblance to an hypertrophied bladder. Weight, ten ounces. Measurements, twenty-two by fifteen centimeters. Average thickness, fifteen and two-tenths centimeters.

"The growth is covered in some places by a layer of peritoneum, and over its exterior are numerous torn pieces of tissue, marking the sites of adhesions. The vascular supply of the exterior of the mass is quite extensive, but its interior is bloodless and poor in vessels.

"On section, no signs of formation can be found—nothing but a softened, œdematous, fibrous tissue. This tissue is easily separated by the fingers so as to form pseudo-cavities, but no true, performed cavity is present anywhere.

"The tissue varies in color at different points. On holding the mass up to the light, it is seen to be traversed by bundles, or trabeculæ, of reddish fibers (smooth muscles?), which offer a contrast to the general whitish ground of the tumor.

"*Microscopically*, (1) The growth consists of ordinary fibromucular tissue, similar to that of a uterine myo-fibroma. The vessels are few in number. (2) The fluid squeezed from the interstices of the tissue is colorless, and contains no cellular elements, except a few blood-corpuscles (lymph?). (3) The tissue, covering the exterior of the growth, is a delicate membrane, strengthened by interlacing fibers of connective tissue, in the meshes of which are numerous large, epithelioid cells. Nerve-fibers and blood-vessels cross the field in all directions.

Inferences.—(1) This is not an organ, that is, the bladder. (2) It is not an ovarian cyst. (3) It is not composed (at least to any great extent) of imflammatory tissue.

"*What is it?* I submit two theories, both of which are merely theories—namely: (1) The growth is a local hypertrophy of the pelvic connective tissue. (2) It is a super-peritoneal uterine fibroid, which has become thoroughly œdematous.

"I incline to the former view for the following reasons: (1) The situation of the mass at the time of operation, as described to me. (2) The absence of a distinct pedicle. (3) The absence of a complete peritoneal covering. (4) The absence of any 'geodes,' or cavities, in the mass, such as are almost invariably found in a softened fibroid. Finally, the *tout ensemble* of the tumor, which forbids the thought that it has ever been a firm, hard growth, such as fibroid.

"*Origin of the Growth.*—The presence of the adhesions, in which the mass was buried, the dilated condition of the blood-vessels in those adhesions, and the general œdema of the tissue, all point to some obstruction of the circulation in the tumor. It is not difficult to regard this phenomenal appearance as due to simply a localized œdema of the pelvic connective tissue."

That this tumor had no connection whatever with the uterus or bladder he feels quite sure. His impression is that it belongs to a somewhat rare class of tumor, arising from the pelvic areolar tissue or the round ligaments, of which quite a number have been recently reported by German pathologists.

A. Martin, in his recent work upon the "Diseases of Women," says: "In the broad ligaments are to be found also solid tumors which are described as myoma or fibro-myoma. They are not connected with the uterus, but spread out between the epithelial layers of the ligamentum latum, and can from that point develop as large abdominal tumors, or may grow downward toward the vagina, and, finally, at the side of the vagina, bulge out as far as the vulva, where they present themselves for operation. In rare cases they have pushed through the great ischiadic foramen."

The same author also reports the case of a woman who complained of great weight and vaginal pressure. He found a prolapsus of the anterior vaginal wall, and also of the posterior, Douglas's pouch being filled with a soft mass which seemed to arise on one side of the uterus. He performed laparotomy, and found the mass to consist of an œdematous fibro-myoma of the broad ligament.

Schmidt reports a case of a solid tumor attached by a pedicle to the broad ligament, which caused marked prolapse of the anterior vaginal wall.

Schröder acknowledges the existence "of consecutive-tissue tumors, of very soft consistence, which are saturated with fluid, and which arise in the pelvic connective tissue, and in this situation (subserous) continue to develop. Their anatomical relations correspond to subserous ovarian cysts," etc.

M. Hofmeier (*Gesellseh. f. Geb. und Gyn.*, Berlin, October 24, 1885) reports a tumor, of the size of the fist, situated between the anterior vaginal wall and the urethra, causing a decided prolapse, and projecting above the level of the vaginal wall to the size of an egg, the spot being somewhat ulcerated. After a division of the capsule, it was easily enucleated. Its attachment was deep in the connective tissue of the pelvis; and it belonged to the rare class of soft fibroid tumors of the pelvic connective tissue. It is highly probable that the tumor which Dr. Thomas removed belonged to one of these curious and rare classes.

Little can be said concerning the treatment of vaginal and vulva herniæ, for the reason that there is but one variety, the pudendal, which eventuates from inguinal hernia, for which very much can be done. That variety is as amenable to treatment by the ordinary truss as inguinal hernia is. The other variety can, to a limited degree, be relieved by pessaries, perineal pads, abdominal bandages, etc.; but we are poor in methods of decided relief, and utterly wanting in those of cure. The plan suggested, and partially carried out in the case which Dr. Thomas related, promises more than any other which has yet been brought forward; but of the vilidity of this surmise time and experience must give the proof. If another case of large vaginal hernia presents itself, he should feel inclined to try laparotomy, dragging up the sac and fastening it in the abdominal wound.

B. Schmid says ("Handbuch f. Chir.," Billroth und Pitha) that attempts were made by Huguier at radical cure of vaginal hernia by an oval incision of part of the posterior vaginal wall and enclosure by suture, but without any lasting result. He must, indeed, be a sanguine surgeon who hopes for much from such procedures.

THERAPEUTIC PROGRESS.

Oil of Sandal Wood for Epididymitis.—Dr. Robert Wharry, of London, recommends the use of oil of sandal wood in the treatment of gonorrhœa and its complications. He has found it very serviceable in epididymitis and gonorrhœal rheumatism.

Chloral in Whooping-Cough.—Chloral is another that may be added to the large number of medicaments that are known to exert a favorable influence upon this disease.

Apomorphine in Croup and Bronchitis.—The subcutaneous injection of apomorphine in diphtheria and croup is loudly praised by Dr. Stutz. It has been found valuable in dyspnœa due to bronchitis.

Nerve Tonic.—As a tonic for deranged nervous system in a girl suffering from chlorosis Professor Jacobi prescribed:

℞.	Sulphate of strychnia	gr. j.
	Dilute phosphoric acid	f℥j.

M. Sig. Ten drops in water after each meal.

Strychnine to Prevent Flooding.—Dr. Walker, of Manchester, England, says: Strychnine, administered along with iron for a month before labor, has exerted a remarkable influence in preventing postpartum hæmorrhage where severe flooding has occurred in premature labors.

Pilocarpin in Alcholism.—Dr. Isham, of Cincinnati, has found pilocarpin useful in producing sleep in cases of acute alcoholism, and, at the same time, in inducing rapid excretion of the poison without any of the bad effects of the narcotic drugs usually resorted to in this condition. He gives one-third of a grain of the hydrochlorate of pilocarpin hypodermatically.

Treatment of Tuberculosis.—Potain recommends the annexed prescription as a remedy in tuberculosis:

℞.	Chloride of sodium	ʒiiss.
	Bromide of sodium	gr. lxxv.
	Iodide of potassium	gr. xv.
	Distilled water	fl℥iij.

M. Sig. Dessertspoonful every morning in a cup of milk.

Tinea Circinata.—In this parasitic disease, Dr. Da Costa is very partial to the sulphite of soda, using

℞.	Sulphite of soda	ʒiij.
	Glycerine	ʒij.
	Water	℥iij to ℥vi.

The parts are washed with this and the surface covered with oiled silk.

Teething Lotion.—M. Viger suggests the following formula to allay the suffering often caused to infants in cutting teeth, especially the canines:

℞.	Hydrochlorate of cocaine	gr. iss.
	Simple syrup	ʒijss.
	Tincture of crocus	gtt. x.

M. S. Rub gently upon the gums several times a day.

ETHYLATE OF SODIUM IN TREATMENT OF NÆVUS.—Ethylate of sodium has been extensively employed by Dr. Welsh of England, in the treatment of nævus occurring in children. He paints the nævus with the ethylate on two consecutive days, taking care to protect the sorounding skin. He states that all cases of superficial nævi, when thus treated, have been found cured when the scab separates.

COCAINE IN SEASICKNESS.—Dr. Manassein claims to have found a cure and preventive for seasickness in cocaine administered as follows:

℞.	Muriate of cocaine	gr. ij.
	Brandy, q. s. ad. solv.	
	Distilled water	fl℥v.

M. Sig. Teaspoonful every two or three hours.

AN ANTISEPTIC OINTMENT.—

℞.	Iodoform	ʒj.
	Subnitrate of bismuth	ʒiv.
	Boracic acid	ʒij.
	Vaseline	℥ij.

It is spread on absorbent cotton sufficiently large to cover the wound, and considerable extent of surface around it. It can be easily removed without adhering to the wounded surface.

PREVENTION OF TIMUTUS AURIUM.—Dr. E. J. Beal for ten years or more has been combining ergotine with quinine, with the view of moderating the effects of the latter upon the brain. Lately he has added cocaine to controle nasuea that is sometimes induced by both quinine and ergotine. The following proportions are recommended: Parts by weight—cocaine hydrochlorate, one; ergotine, six; quinine sulphate, twenty.

PARALDEHYDE AS AN HYPNOTIC.—This new remedy in many cases is superior to chloral hydrate as a hypnotic. It may be administered as follows:

℞.	Paraldehyde	ʒj.
	Comp. tragacanth powder	gr. xx.
	Syrup of auri, Spirits of chloroform	āā ♏ xv.
	Water, ad	℥iij.

M. S. The whole to be taken at one dose at bedtime.

ERGOTINE INJECTIONS IN GOITRE.—Coghill recommends the injection of the following solution of ergotinine instead of iodine.

℞.	Ergotinine	gr. xv.
	Glycerine, Distilled water	āā f℥ij.

M. Sig. Inject sixteen minims hypodermatically.

There is but little pain attached with the operation, and no subsequent swelling.

PEROXIDE OF HYDROGEN IN SUPPURATING EARS.—Dr. William A. Dayton says: A spray of a four per cent. solution of the peroxide has had an almost magical effect in a case of ozena complicated with "proliferous" catarrh of the middle ears. Strong solutions induce local anæsthesia, often in a marked degree; besides I have noticed that cocaine acted more promptly after the mucous membrane had been cleansed with the peroxide. If cleanliness is the desideratum in middle ear suppuration, then we have a servant par exellence in the peroxide of hydrogen.

EXTERNAL APPLICATION FOR NIGHT SWEAT.—Nicolai reports good results in the treatment of night sweats of phthisical and other patients by lotions of chloral disolved in equal parts of brandy and water (one drachm to a tumblerful). The patient should be sponged with this lotion every evening before going to sleep. If this does not control the sweating the night shirt should be soaked with the lotion and then dried. This treatment has been partioularly serviceable in the night sweats of non-phthisical children. Three or four rubbings will sometimes arrest the sweating for several weeks.

STYPTIC OR HÆMOSTATIC ETHER.—Dr. Richards has had prepared ether which checks hæmorrhage by cold, and overcomes the subsequent relaxation of the vessels by its constringing action. This is a solution of absolute ether, having a boiling point at 95° Fahrenheit, charged to saturate at a low temperature with tannin, and afterwards treated with collodion, a little short of saturation. It is used in the form of a spray. The primary effects on an open bleeding, living surface, are those produced by cold. It solidifies flowing blood, the coagulation soon stopping further flow. The elements in this process are three in number: (1) The immediate constringent effect of cold on the blood-vessels. (2) The styptic action of the solution on the fibrin and albumen of the blood. (3) The extreme mechanical fineness of distribution of the fluid on the bleeding surface. Styptic ether can also be applied to the hæmorrhagic surface after the extraction of a tooth, for hæmorrhage from cancerous disease of the uterus or other cause, and in cases of hæmorrhage from piles.

THE ACTION OF NITRO-GLYCERINE ON NEPHRITIS.—Professor Rossbach reports interesting results from the treatment of interstitial nephritis with small doses of nitro-glycerine. Under the influence of the nitro-glycerine the urinary albumen eliminated by the kidneys diminished, while the quantity of urine increased. Rossbach also observed a beneficial result from the drug in cases where there was hæmaturia, both in the ophthalmoscopic appearances of the fecundus oculi as well as in other symptoms accompanying nephritis. Rossbach examined the action of nitro-glycerine, amyl nitrite, and the nitrites of potassuim and sodium, and gave a decided preference to nitro-glycerine, calling it an "excellent remedy" in interstitial nephritis, "prolonging life and cutting short grave attacks." The results arrived at are as follows: (1) Nitro-glycerine in small doses diminishes the quantity of urinary albumen passed per diem, and still more markedly the percentage of albumen in the urine. (2) The diurnal quantity of urine is perceptibly increased by nitro-glycerine, this increase persisting sometime after the nitro-glycerine had ceased to be given. (3) Gradually increasing doses of nitro-glycerine, influence still more decidedly the formation of albumen. (4) I have been unable to determine the influence of nitro-glycerine on the weight of the urine, the weight of the patients, and on the dropsy. (5) With the exception of slight and transient headache, nitro-glycerine does not give rise to any disagreeable symptoms.

SPECIAL NOTICES.

Dr. S. W. Hunter, of Baltimore, Maryland, having become familiar with Colden's liquid beef tonic, takes pleasure in recommending it as an excellent preparation, combining as it does food and tonic in a remarkable way, producing good blood, health and strength.

A. A. Mellier, of 709 and 711 Washington avenue, Saint Louis, is the Western and Southern agent for the pure bovine virus, from the celebrated Lancaster county vaccine farm. Success guaranteed in all primary cases. This virus is from purely grain-fed stock. Put up in original glass packings. Send for circular containing prices and discount.

Jefferson Wilcox, M. D., of Hazlehurst, Georgia, has used Peacock's bromides in his practice with success. A little girl twelve years old had been afflicted with epilepsy since she was three months old, having epileptic convulsions nearly every day until he put her on Peacock's bromides. Since then she has not even had a symptom of one. It is surely a great remedy.

Jas. H. Bullard, M. D., of Pacific Junction, Iowa, says: I have used celerina for nearly three years in my practice, and have found it all that is claimed for it in every respect. I have made one severe test upon a man who has been a drunkard for fourteen years; who could not sleep unless he had one continual opiate. I discharged him after three months, using nothing but the celerina in one drachm doses, two to four times

a day. I could cite many other cases, but in closing will say I believe every physician should have celerina in their offices and prescribe it in all nervous diseases.

Doverina in Dysentery.—William H. Anderson, M. D., of Portage, Utah, writes to Farrand, Williams & Co.: Your sample of doverina was received in due time, but I have not had a case to try it upon until this fall. In every case I have used it it has proven "the boss." I consider it far superior to dover powder. I have used it this fall, in the diarrhœa and vomiting of children, combined with Horlick's food, with remarkable success. My last success was with a lady taken with purging and vomiting, all common remedies having been used to no purposes, and with cramps. I found her pulse just fluttering, a cold clammy sweat, and only able to speak in a whisper. * * * * * I saw the doverina in my satchel, and thought I would try that. I did so, in combination with lactopeptine, and in half an hour I had my patient in a sweet sleep and a warm sweat of a natural order all over her body. I consider it a glorious triumph for doverina, as she had been treated with all the usual remedies for such cases. I would not be without it, as I consider it a sure shot with children in combination with Horlick's food. Enclosed find fifty cents for another ounce by mail.

Chapman, Green & Co., Manufacturing Chemists, Chicago: *Gentleman*—I promised you when you sent in the sample of Dr. Rose's peptonized beef, to give it a thorough trial in my practice. I confess that I commenced with a prejudice against these preparations, never having seen the good effects promised for them. I commenced by using it myself, in warm milk, and found it delightfully agreeable and soothing, not only to the stomach, but the nervous system. I have prescribed it largely, and without exception, my patients are pleased with its effects. It is especially valuable in atonic dyspepsia, catarrh of the stomach and bowels, acid indigestion, low fevers, diphtheria, and particularly in neurasthenia in all its forms. It is a real poptonized food, and I cannot imagine a case where it will not agree with the stomach. As a food for infants, when all starchy foods are not well borne, this will act as a powerful nutritive agent, and a sedative to the whole system. As a dietetic agent, it is the greatest boon lately presented to the medical profession. Very Sincerely,

E. M. Hale,
65 Twenty-second street, Chicago.

Note.—One-half pound samples of Dr. Preston B. Rose's peptonized beef are sent free to any physician who is willing to pay express charges. Address the sole agents, Chapman, Green & Co., Chicago, Illinois.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. MARCH, 1886. NUMBER III.

ORIGINAL ARTICLES.

BENIGN TUMORS.

BY N. SENN, M. D., MILWAUKEE, WISCONSIN,

Professor of the Principles and Practice of Surgery and Clinical Surgery in the College of Physicians and Surgeons, Chicago, Illinois.

GENTLEMEN: From our introductory remarks on the subject of "Tumors" you undoubtedly became impressed with their force and applicability when we considered the histological and etiological origin of these growths. You will remember that in order for a tumor to grow we considered it necessary in the first place to have an embryonal matrix of immature tissue, and that it was necessary to have some kind of a stimulus to develop this embryonal matrix into tumor tissue.

In considering the difference between benign and maligrant tumor growths, I shall aim to impress upon you the important fact that, histologically, there is no difference; pathologically, the difference consists that in a benign growth the physiological resistance of the tissue remains unimpaired while in a malignant growth the physiological resistance becomes impaired to such an extent that invasion of the tissues by the proliferated cells is rendered possible. The histological elements of benign growths—as long as the tumor remains benign—remain within physiological boundaries; that as soon as the histological elements of a tumor become erratic or pass beyond the physiological line by a diminution of the physiological resistance in the tissues, the tumor becomes malignant. A benign growth is the result of physiological stimulation, which implies active nutrition and active circulation, and unimpaired physiological resistance. We usually meet with these growths in young subjects, where there is activity in the physiological processes everywhere, where the circulation is forcible, and the tissues are in a condition to offer that resistance against invasion of the physiological growth of the tissues, acting as a stimulus upon the slumbering, embryonal elements in the matrix of the tumor. Consequently, certain varieties of benign growths are usually developed at a time when certain layers of the embryonal tissue are in an increased condition of physiological stimulation. Another feature is that these growths remain circumscribed. A tumor of a benign character by pressure may displace parts, may act unfavorably upon the nutrition of adjacent tissues, cause erosion, absorption even of bone, cartilage or any of the anatomical elements of the body; it never passes beyond its proper limits. On the other hand, an important clinical feature in the malignant growth is that it has a tendency to diffuse itself into the tissues regardless of anatomical characteristics; so that the age of the patient, the character of the tumor, its limitation in the tissues, are important clinical features in considering these growths. Another fact of paramount importance is absence of pain. The benign growth, unless it effects the sensitive nerve structure, directly gives rise to little or no pain. If it does give rise to pain it is simply the result of pressure. Again, benign growths are noted for their slow development, resembling the physiological growth of the tissues; while, on the other hand, malignant growths, as a rule, develop with great rapidity locally; but a metastatic tumor results from the original tumor or infection itself. In classifying them we do so according to their histological elements, and divide them into tumors originating from connective tissue, epithelial elements, nerve tissue. Two great tissue types are the connective and epithelial. Muscular tumors only develop themselves in connection with connective tissue proliferation. When I say that these tumors develop from connective tissue, I again remind you of the fact that it is not the mature, pre-existing connective tissue, but a superabundant deposit of embryonal tissue, remaining as a remnant from embryonal life. This is the hypothesis upon which we found the etiology of all tumors. It is, then, an embryonal matrix, which, when placed under favorable physiological conditions, develops itself into mature tissue in the shape of a tumor. This may explain the fact that a tumor does not become diffused along the pre-existing mature connective tissue, but remains circumscribed, depending upon the amount of embryonal tissue deposited. If the mature connective tissue were the matrix from which tumors grow, there is no reason why they should remain circumscribed. We can see no reason why the tissue proliferation should not extend itself along the connective tissue, if it is the result of tissue from a circumscribed embryonal deposit, to which tissue growth is limited. The mature connective tissue acting as a barrier, we can readily understand, that the processes must remain limited to the original embryonal deposition. The most typical type of the connective tissue tumor is the fibroma, which we clinically and anatomically divide into the soft and hard variety. The soft variety, as its name implies, presents itself to us as a soft tumor, originating, usually, in the skin structures,—in other words, consisting simply of hypertrophy of the skin. Microscopically, it consists of a meshwork of connective tissue with proliferation of the skin appendages. By this I mean the tumor, as a rule, is covered by hypertrophy and papillæ of skin, that the vessels and glands in the tumor itself become enlarged, keeping pace with the normal physiological growth of the tumor substance proper. This form of tumor we meet about the trunk, and usually develops itself when it attacks the gluteal region. It appears to us sessile as long as its growth takes place in a peripheral direction, the tissue being limited to the skin itself. When it develops to a sufficient extent in thickness by weight and by a peculiar arrangement of the vessels which support it, the tumor becomes pedunculated and assumes an unusual size. Clinically, this tumor may be recognized, in the first place, by its location, its attachment to the skin, with a corresponding increased physiolgical growth to the organ contained therein, enlargement of the sudoriferous and sebaceous glands. If to this we add the nodular appearance of the tumor, its slow growth, and its entire painlessness, our diagnosis is made. The hard variety, on the other hand, occurs in the shape of concentric rings. There is a central region around which the connective tissue elements arrange themselves in a concentric form. What is the reason of this peculiar arrangement of the connective tissue fibres? Virchow and Billroth suppose that the concentric arrangement is due to a development of connective tissue around the vessels or nerves; that the primary starting point of these tumors is in the immediate vicinity of vessels or nerves, so we have three, four, five or six nerves or vessels acting as central starting points, the tumor being made up of so many independent parts. Wherever there is great development of connective tissue, we find there is a tendency of that tissue to contract. If the tissue should, by cicatricial contraction, cause compression, the physiological result would invariably be destruction, a retrograde metamorphosis, removal by absorption of the tissue pressed upon, consequently, the anatomical elements of the nerve fibre itself may have disappeared long before the tumor has arrived at any considerable size, and this disappearance of the anatomical centre would explain the absence of pain. This form of tumor we usually find either in the uterus in the shape of a myofibroma, or about the face, knee and periosteum. The pelvic bones and those of the face are usually the seat of hard fibroma. The clinical history of the hard from the soft variety simply differs in location, the soft fibroma confining itself to the skin structures, and if it has arrived at a considerable size, it is usually noticed to become pedunculated. The hard variety, however, originating from bone, usually preserves its regular, round outline, somewhat flattened on its surface, firm to pressure, distinctly circumscribed, and usually, immovably attached. If it originates from the periosteum or from the connective tissue adjacent to bone, it invariably has a firm point of attachment, which would place you on your guard in not confounding this variety with the malignant forms of bone disease. Slow growth, the age of the patient, the mobility of the parts over the tumor, its distinct and circumscribed outline, will indicate its benign character.

As regards treatment, the most important procedure is extirpation, the only method usually followed when we are dealing with fibroma of the skin. The removal of a pedunculated tumor in a timid patient may be accomplished in a remarkably short time by elastic constriction. Ligation with inelastic material should be condemned as painful, slow and often inefficient. If we desire to remove a tumor in a timid patient by strangulation invariably resort to elastic ligature. Transfix the base of the pedicle with a large needle threaded with an aseptic rubber tube; you can thus strangle the tumor, cut off any further supply of blood, and in a short time by elastic constriction the pedicle will be severed. Another efficient method is the galvano-caustic loop or Paquelin's cautery. One protection, however, is always necessary whether resorting to ligation or excision, and that is, to remove the tumor at the base of the pedicle.

The next variety of benign growths is the ordinary fatty tumor or lipoma, divided anatomically into the circumscribed and diffused form. Do not confound benign diffusion with the malignant, which is usually explained by the peculiar anatomical arrangements of the parts in which lipomatous tumors are found. The ordinary lobulated lipoma is always found in the panniculus adiposus. We find these tumors in the trunk, gluteal region and the extremeties. The peculiar embryonal growth of fatty tissue explains the frequency of fatty tumors. As previously remarked, the only treatment for them is extirpation. It is this class of tumors which were, previous to the introduction of antispetic surgery, so frequently followed by septic infection after an operation. In resorting to extirpation be diligent in the application of antiseptic principles. No variety is so likely to furnish a soil for septic infection as this.

CLINICAL LECTURES.

CEPHALOTRIPSY.

BY PROFESSOR PAJOT, PARIS, FRANCE,
Hospital Clinique d'Accouchement.
REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY OUR PARIS CORRESPONDENT.

GENTLEMEN: I wish to speak to you of the long and dangerous operation that you saw me do on Sunday. The woman presented at first sight a special aspect that showed you all that she had some deformity of the pelvis. However, the narrowing is not so very marked, as the head of a fœtus can engage itself in the superior straight. Some six months ago she consulted a "*sage-famme*" who told her it was all right and advised her to wait until full term. She obeyed, and Thursday last she had rupture of the membranes at 7 o'clock in the evening, had her first pains the next morning, and later in the day application of the forceps by a doctor who was called in, and who, after failing to extract the child, went away leaving his forceps in the uterus! This practice seems to be too much the rule among the doctors in the city. They have so much trouble to place the forceps the first time that they leave them in place hoping for better luck later, but I hope none of you will continue this sort of practice in any case. The forceps remained in the uterus in this case until 11 o'clock at night, and at 1 o'clock in the morning the poor woman was brought here. The intern perforated the skull, but still the head would not move; he then tried to introduce the cephalotribe in order to crush the head of the fœtus, but he was only able to get in one blade, so I was sent for. I at once examined the woman carefully and found that there was a marked narrowing of the pelvis but still that it was not an extreme case, and on this I founded my treatment. The head of the fœtus was not yet engaged and it was strongly pressed down in the superior straight. Between it and the uterine walls there was not enough room to put in a pin.

I decided to recommence the usual operation of cephalotripsy, and to use the old-fashioned cephalotribe, which is after all the best, and with it Dubois used to have wonderful success, but you must know how to use it. In fact in using it there are all sorts of little precautions to take, of which your books do not advise you, and which you must know in order to succeed. There is one thing, however, which I do not like about it and that is: that when you commence the crushing, the head slips (the shape of the instrument (a V) shows why), and I have been trying to remedy this for the last two years. The pressure at the point of the V is certainly stronger than higher up, so that the head escapes from below upwards at the moment you put on the pressure. The basiotribe has been invented, but it only displaces the difficulty. Instead of the head moving at the moment of pression it moves when you attempt to perforate it. In fact I advise you to stick to the old classic instrument; but let me tell you how to use it. Just as you do for the forceps, take the left branch in your left hand like a pen you are starting to write with, manage it with prudence and lightness, and then try to introduce four of your fingers, but generally you will not succeed in getting in more than two; indeed on some ten different occasions I could not get more than one in (where the pelvis was not more than five centimetres in diameter). At this moment remember one thing, which must be your only guide, that is, the axis of the pelvis. Your instrument has to make two curves in one movement: a vertical one that represents the curve of the free uterus; a second one that is horizontal, represented by the head of the fœtus that occupies the uterus. Introduce the blade slightly inclined towards the groin of the opposite side to which you are applying it, and as it enters press the handle down between the legs of the patient; besides this there are all sorts of artifices that will help you and give you success. I get, for instance, two of my fingers in, or at least one,—you must have one at any price or you cannot think of introducing the instrument at all. If I feel there that I cannot get farther, I make a lever of my finger and pressing on the walls of the pelvis, I push the head inside. This movement only takes a second, and I take advantage of what I gain to slip in the first blade. If I fail I recommence the same movement; succeeding in this, the other branch is introduced in the same way. I then articulate the two blades and carry the handles as far back as I can. This last point was the subject of considerable discussion with Tarnier. I had written on this subject and he objected that it should not be carried back too far; this could be so for medium narrowing of the pelvis because the head is already engaged in the superior straight, but in extreme narrowing there is no place for the head between the sacrum and the pelvis. So where is the head lodged? Why, evidently in front, pressing on the abdominal walls, so that the handles must be carried far back to catch hold of it. But to return to our subject: the head now being most likely within the blades, you have two assistants place their hands on the uterus. They should not press down but simply try to keep it in place. Be careful now not to turn the screw too fast or you will not seize anything. You must go very slowly at first, make a turn and then stop, then go on slowly letting the instrument take its place. Before the present operation I told you that I would most likely make two or three applications of the instrument before I would draw on it; but on making the first I felt that I had taken the head so solidly that I was tempted to make traction at once, but as a rule I maintain that it is best to go on crushing and crushing until the woman has a chance to bring the rest out herself. Having a good hold I made traction in this case, pulling with all my strength, and at the same time I applied my plan of placing my left hand in the middle of the instrument in such a way as to make a lever, continuing to pull with the right.

In this way you have a great force which you must be careful in using so as not to crush the sacrum or the posterior walls of the uterus. While still pulling I inclined the instrument to the right so as to place the flattened side of the head in the narrowest part of the pelvis, but here if that needs too much force do not continue but turn it to the other side when it will come out. Having arrived at the inferior excavation a fact will be noted that astonishes the operator who does not know of it, that is, without moving the cephalotribe the instrument is brought to a straight line. This is owing to the accommodation of the axis of which I have so often spoken this last twenty-five years.

I then threw the instrument up onto the belly of the patient and the head was out, but the trunk remained. I pulled on the head with care: not succeeding, I made a cravat around the neck with a napkin, and pulling on this I was able to get my fingers on the arms and draw them down one by one and the "accouchement" was finished without hardly any violence; and with the use of a few laudanum cataplasms and some repose, I hope to see the patient about very soon.

Here, then, is the most difficult operation in obstetrical practice finished, and you will see why certain doctors prefer the Cæsarian operation to this one. That is easy and anyone that can cut can do it.

But here it is different,—you need all your address and prudence to succeed, for it is always difficult. I wrote of this operation:

"When the narrowing of the pelvis is comprised between six and a half and nine centimetres, cephalotripsy, as it is generally practiced, is a good obstetrical operation. It presents only medium difficulties. The traction should not be excessive; application of the instrument should be made two or three times. As to the application of the cephalotribe without traction, it applies to extreme narrowing of the pelvis—those having less than six centimetres and a half."

It is a good operation that should be advised, but when there is such a pelvis that nothing will pass, it is of course absurd to persist in attempting to pull the fœtus out; you can only tear the uterus and vagina, and indeed if there is too much disproportion you may even tear the pelvis asunder leading to the death of the woman. So I ask your attention to the mode of procedure in case of an extremely narrow pelvis (at first I used to perforate the head before the operation but I now see that it is not well to do so because the flaps of the scalp skin interfere afterwards with the operation). I now proceed as follows: As soon as I can get the instrument in place I at once crush the head and then wait until the uterus does itself what I do not attempt, that is, proceed to the expulsion. I turn the flattened side of the head in the narrowest part of the excavation. I then leave the patient alone for an hour or two, and finding that nothing has happened I again apply the cephalotribe. I do not make more than three or four applications at most. At the end of seven or eight hours the contractions are sure to come on and the fœtus, not having the same consistence, will commence to engage itself. In extreme cases I have had also to crush the shoulders and even the hips. Gazeau said: "Your method may be good but it is too long, and it exposes the woman to the chances of death by puerperal fever afterwards;" but I answer that to-day, thanks to antisepsia, we are not without means to combat these complications. I repeat that in all medium cases it is not a very difficult operation, and may be comparatively easy; and for those extreme cases under five centimetres repeated crushing is the operation, for the child is sure of being lost in any case and the mother's chance in the Cæsarian operation is not great. Remember the advice of Madame Lachapelle, in these cases: "Slowness, continued attention;" but, by the way, no woman can undertake such work. I have myself been quite knocked up by having several cases in one week to attend to.

To resume all in two words: Introduce the blades as I said, then turn very slowly as you commence to crush. Keep the uterus supported by the aid of assistants to support it and to prevent the fœtus returning. If you have a good hold try traction by carrying the flattened side of the head into the narrowed part of the pelvis, using all the precautions and artifices that I have indicated to you, without which you cannot make a success of this operation.

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY F. B. FLORENTINE, M. D., SAGINAW CITY, MICHIGAN.

SPONTANEOUS EVACUATION OF PLEURITIC EFFUSION BY A WOUND OF THE CHEST.

BY DR. BARBE, PARIS, FRANCE.

A man thirty years of age, shoemaker, while in the act of cutting a piece of leather, accidentally wounded himself in the chest, above the left nipple, and transversely in the third intercostal space. He bled very little, felt no oppression whatever, nor any immediate pains in his side; in fact, he kept on working without paying the least attention to the wound, not even dressing it. The wound did not cicatrize but soon scabbed over. About two weeks after he took a bath in order to loosen the scab. Immediately after bathing he was suddenly taken with slight repeated chills, lassitude, and pains in the left side, the same side of the wound. For about three days he lingered at home, but the fourth day, the 29th of October, 1884, he entered the Hospital Saint Antoine, and was put to bed under the care of Dr. Dienlafoy.

The night of the day that he entered the hospital I found his fever to be 38.8° Reaumur, and all the signs of pleurisy of the left side with effusion. The patient carries as yet the scabbed wound over his left nipple. I dressed the wound.

The next morning, October 30, Dr. Dienlafoy examined the patient and estimated the effusion at seven hundred grammes. In the evening the fever was at 39° Reaumur.

In the morning of the 31st the fever remained the same, but in the evening rose to 39.1° Reaumur. The pleuritic effusion increased.

On November 1, the patient related that during the night he was suddenly inundated by a liquid that flowed from the wound. The dressing being removed we observed a serous liquid under the form of a filiform net issuing from the wound and more or less marked with each expiration. The patient informed us that he suddenly found himself wet after stirring in bed during the night. He does not feel worse, but to the contrary he feels somewhat relieved. We examined the patient with the greatest care, but failed to discover any symptoms of pneumothorax. We dressed the wound under a bandage applied rather tightly and informed the patient of the importance of remaining very quiet; milk and a diuretic *usane* were prescribed.

On the following morning the patient complained of getting wet the preceding night. On the 2nd, we observed, moreover, expectoration accompanied by rusty sputa. On the preceding evening the fever reached 40° Reaumur, and we discovered, at the base of the left side, a slight tubular sound, confined to a small space, however. There was evidently a complication of circumscribed pneumonia superadded to the pleurisy.

On the 5th, the temperature became normal, but the liquid still flowed every night and morning.

On the 8th the fever reappeared at 38° Reaumur; and the following day rose to 39° Reaumur. A small quantity of pus is being discharged from the wound, and the liquid is not so clear, but of a suspicious tint, we are afraid of a purulent transformation of the effusion. It is true that we had to make allowance for the pus furnished by the wound, but nevertheless the last portion of the pleural liquid had a suspicious tint; it was not pus but a sero-purulent liquid.

The following days the temperature oscillates, in the evening 38.8° Reaumur; and some liquid flows out from the wound every morning. The fever persisted till November 14, when at night it was 37.5° Reaumur. From this day on, the liquid that flows becomes less and less abundant, and the wound is gradually getting smaller in circumference. On the 20th the liquid ceased to flow and but a slight leaking of the wound is noticed. The temperature rises from time to time to 38° Reaumur, but fever is due to a commencing tuberculosis of the left summit. The wound cicatrizes quite slowly.

The 28th, the patient feeling quite well wishes to leave the hospital, and in effect left it.

In recapitulation we have here a man who has received a wound of the chest which does not seem to have penetrated clear into the pleural cavity; the absence of the symptoms indicating the penetration of air or blood in the cavity permits to avert this supposition. Afterwards the patient contracted a pleurisy with effusion, due, perhaps, to a too sudden cooling of the system immediately after taking a bath. The effusion gradually increased, and under the influence of a sudden movement the parietal pleura ruptured; hence the flow of the liquid outside. This flowing is repeated every twenty-four honrs. As the liquid is reproduced, the surplus flows out. This narrow wound of the chest, with oblique passage, in which the air is unable to penetrate into the pleural cavity, constituted a sort of safety valve which spared the patient several thoracentesis. —*France Medicale.*

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CLINIC.

REPORTED BY WM. P. MUNN, CLINICAL CLERK.

REPORT OF CASES, OPERATIONS, AND ANÆSTHESIA, FROM OCTOBER 1, 1885, TO FEBRUARY 1, 1886.

CASES PRESENTED.

Diseases of the Osseous System.—Necrosis of femur, 3; necrosis of tibia, 2; necrosis of pelvis, 1; necrosis of humerus, 1; necrosis of elbow-joint, 1; necrosis of inferior maxilla, 2; necrosis of os calcis, 1; old dislocation of hip-joint, 1; fictitious dislocation of hip-joint, 1; dislocation of elbow-joint, 1; ankylosis of elbow-joint, 3; ununited fracture of radius, 1; ununited fracture of humerus, 1; lateral spinal curvature, 2; morbus coxarius, 6; synovitis of knee-joint, 10; synovial bursa of wrist, 2. Total 39.

Diseases of the Muscular System.—Congenital talipes, 2;

acquired talipes, 3; spasm of sphincter ani, 1; spasmodic torticollis, 1. Total, 7.

Diseases of the Cutaneous System.—Ingrown toe nails, 2; rodent ulcer, 1; indolent ulcer, 5; eczema, 1; lupus, 5; contraction following a burn, 1. Total, 15.

Diseases of the Nervous System.—Infantile paralysis, 2; fictitious sciatica, 2. Total, 4.

Venereal Diseases.—Secondary syphilis, 2; gonorrhœa, 1. Total, 3.

Diseases of the Genito-Urinary Tract.—Acquired phimosis, 1; orchitis, 1; hydrocele, 1; varicocele, 2; traumatism of testis, 1; cystitis, 3; vesical calculus, 2. Total, 11.

Diseases of the Alimentary Tract.—Obstruction of Wharton's duct, 1; hypertrophy of tonsils, 1; stricture of œsophagus, 1; umbilical hernia, 1; inguinal hernia, 1; hæmorrhoids, 3; prolapse of rectum, 1; fistula in ano, 2. Total, 11.

Congenital Diseases.—Nævus on forehead, 1; nævus on side, 1; hare-lip, 1; hypospadia, 2; dermoid cyst, 1; hydrocele of tongue, 1; phimosis, 1; cleft-palate, 3. Total, 11.

Tumors.—Malignant parotid tumor, 2; malignant tumor of superior maxilla, 1; malignant tumor of inferior maxilla, 1; malignant tumor of neck, 1; bony tumor of superior maxilla, 1; fibrous tumor of lip, 1; wen on head, 1; fatty tumor, 2; epulis, 1; cystic tumor (wen) on shoulder, 1; lymphatic enlargements in neck (Hodgkin's disease), 4; tumors of breast, 3; hæmato-sarcoma of thigh, 1; epithelioma of lip, 2; epithelioma of face, 1; ovarian cyst (unilocular), 1; ovarian cyst with scirrhus of omentum, 1; cancer of rectum, 2; pulsating tumor of orbit, 1; cystic bronchocele, 1. Total, 29.

Unclassified.—Hypertrophy of septum nasi, 2; sinus, gluteal, 1; sinus, plantar, 1; sinus, abdominal, 1; crush of finger, 1; morphia habit, 1. Total, 7.

OPERATIONS PERFORMED.

Amputation of breast, 2; amputation of finger, 1; amputation of leg below knee, 1; amputation of thigh, lower third, 1; exsection of elbow-joint, 1; exsection of knee-joint, 1; resection of humerus, 1; removal of bone from femur, 3; removal of bone from tibia, 2; removal of bone from inferior maxilla, 1; removal of bone from humerus, 1; division anterior annular ligament of wrist, 1; division tendo-achillis and fascia, 4; stretching sphincter ani, 1; removal of ingrown toe-nails, 2; removal of nævus from side, 1; removal of wens on head, 1; removal of fatty tumor, 1; removal of tumor of lip, 1; removal of dermoid cyst, 1; removal of epulis, 1; removal of cystic tumor from shoulder, 1; ovariotomy, 2; lithotomy, 3; exploratory incision, 1; tapping bronchocele, cystic, 1; tapping hydrocele (tunica vaginalis), 1; tapping, hydrocele (tongue), 1; electrolysis for nævus, 1; hare-lip operation, 1; hypospadia operation, 2; cleft palate operation, 2; circumcision, 1; slitting prepuce, 1;

varicocele operation, 1; castration, 1; removal of tonsils, 1; hæmorrhoids, by ligation, 1; hæmorrhoids, removal by incision, 2; fistula in ano, 2; opening Wharton's duct, 1; cautery to epithelioma, 1; cautery to synovitis, 1; cautery to lupus, 1; laying open sinus, 2; dilatation œsophageal stricture, 1; breaking ankylosis of elbow, 1. Total, 63.

ANÆSTHETIC ADMINISTERED.

In forty-two cases in the public clinic, chloroform. Amount used (average thirty-two cases), three and one-half drachms. Time going under (average thirty-six cases) three minutes and fifty-five seconds. Shortest time under, five minutes; longest time under, seventy-eight minutes; shortest time going under, one and three-fourths minutes; longest time going under, nine and one-half minutes. Twenty-five went under in four minutes or less. Age of youngest, three months; age of oldest, seventy-three years: average age (thirty-seven cases), twenty-six years and eleven months.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING FEBRUARY.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of February (four weeks ending February 24), 1886, as follows, the diseases being arranged in the order of their greatest prevalence: Neuralgia, rheumatism, bronchitis, tonsilitis, consumption of lungs, intermittent fever, influenza, pneumonia, diarrhœa, remittent fever, erysipelas, inflammation of kidney, whooping-cough, inflammation of bowels, scarlet fever, diphtheria, typho-malarial fever, dysentery, membranous croup, inflammation of brain, cerebro-spinal meningitis, measles, puerperal fever, typhoid fever (enteric), cholera morbus, cholera infantum.

For the month of February, 1886, compared with the preceding month, the reports indicate that pneumonia and influenza increased in prevalence.

Compared with the preceding month, the temperature in the month of February, 1886, was slightly higher, the absolute humidity was slightly more, the relative humidity and the day and the night ozone were less.

Compared with the average for the month of February in the eight years, 1879 to 1886, pneumonia, influenza, intermittent fever, remittent fever, measles, diphtheria, typo-malarial fever and scarlet fever were less prevalent in February, 1886.

For the month of February, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature was about the same, the absolute humidity was about the same, the relative humidity was more, and the day and the night ozone were much less.

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of February, 1886, at fifty-seven places, scarlet fever at fifty-six places, typhoid fever at nine places, and measles at eight places.

Reports from all sources show diphtheria reported at six places less, scarlet fever at thirteen places more, typhoid fever at one place less, and measles at the same number of places in February, 1886, as in the preceding month, January, 1886.

HENRY B. BAKER, M. D., Secretary.

LANSING, March 4, 1886.

EDITORIAL PERISCOPE.

ELEVATION OF THE MEDICAL STANDING.

The Illinois State Board of Health has recently issued a pamphlet entitled "Medical Education and Medical Colleges in the United States and Canada, 1765 to 1885," in which it is stated that the most suggestive facts revealed by a study of the tables and data presented are: First, that the number of Medical colleges has not increased during the past year. Second, that the number of students and of medical graduates are decreasing. There are still one hundred and twenty-eight institutions for medical instruction in the United States and Canada, the same aggregate as at the date of the last report. But there were seven hundred and sixty-eight less students in attendance upon, and two hundred and seventy-three less graduates from, the sessions of 1884–85 than upon and from the sessions of 1883–84. In the United States there were nine hundred and seventy-three less students, and two hundred and seventy-eight less graduates. In Canada there were one hundred and seventy-six more students and five more graduates. Third, the more marked uniformity in the requirements of colleges. There were two more regular schools (one hundred and one), the same number of homœopathic (thirteen), one less eclectic (eleven), and one less physio-medical (one), which with two miscellaneous or mixed schools, make the aggregate (one hundred and twenty eight) as before.

Graduates at the close of the sessions of 1884–85 have presented diplomas to the Illinois State Board of Health—as the basis of applications for certificates entitling to practice in Illinois—from forty-two regular, seven homœopathic, three eclectic, and two physio-medical schools; being from five more regular, one more eclectic, and one more physio-medical than the previous year.

Excluding four Canadian schools, the graduates of eleven out of thirty-eight regular schools, and of four out of twelve other schools, were required to supplement their diplomas by passing examinations before the board in those branches or subjects of the schedule of minimum requirements which were omitted in the curricula or requirements of their respective colleges. In the previous year the graduates of seventeen out of thirty-one regular, and of four out of six other schools were required to submit to such examination.

It should be understood that diplomas issued at the close of the sessions of 1883–84, and subsequently, are accepted unconditionally—as sufficient warrant for the certificate of the board, required by law—from all colleges which give evidence, in their announcements and elsewise, of an actual and bona-fide compliance with the schedule herein published. The diplomas of colleges which do not give such evidence are required to be supplemented by an examination before the board, on the branches or subjects of the schedule omitted by the colleges in question.

The figures above given show a marked improvement in the proportion of colleges now complying with these requirements. Whereas, during the first year after the schedule took effect, more than one-half of the regular and two-thirds of the other schools (whose graduates applied for certificates) had failed to comply in one or more respects, only a little more than one-fourth of the regulars and one-third of the others were derelict during the past year.

The improvement is shown in detail in the tables embraced in the *Summary of Institutions and Students*, which—among other things—show that there are now one hundred and ten colleges which exact an educational requirement as a condition of matriculation; in the first report there were only forty-five. Attendance on three or more lecture-courses before graduation is now required by thirty-six colleges, as against twenty-two heretofore; and provision is made for a three or four years' graded course by forty-five others. Hygiene is now taught in ninety-one colleges, and medical jurisprudence in ninety-seven; as against forty-two and sixty-one, respectively, heretofore. The average duration of lecture terms has increased from twenty-three and five-tenths weeks to a fraction over twenty-five weeks; seven more colleges have lecture terms of five months or over, and ten more have terms of six months or over, as compared with the sessions of 1882–83.

While this change in the standard and methods of medical education has been going on, it is worthy of note that the numbers of students and of graduates are diminishing—the latter in even a greater ratio than the former. The classes of the last sessions (1884–85) are less than those of any since the sessions of 1882–83. There were in attendance upon these latter sessions thirteen thousand and eighty-eight students; in 1883–84 there were twelve thousand seven hundred and sixty two—a loss of over two and a half per cent.; in 1884–85 there were twelve thousand and two—a loss of over eight per cent. since the schedule of minimum requirements took effect.

At the close of the sessions of 1881–82 there were four thousand five hundred and fifty-five students graduated; in 1882–83 there were four thousand two hundred and fifteen; in 1883–84, four thousand one hundred and one, and in 1884–85 only three thousand eight hundred and thirty-one—or nearly sixteen per cent. less than from the first-named sessions.

There are three causes combined to which this result may be attributed: First, "hard times" throughout the country generally since the great business prosperity of 1882—although the value of this as one of the causes is weakened by the fact that the attendance upon the Canadian schools has increased instead of diminished, there being one hundred and seventy-six more students at the last sessions than at those of the previous year, a gain of twenty-three per cent. Second, a general and increasing desire on the part of the profession to elevate the standard of attainments necessary to enter its ranks. And, third, the enforcement of certain requirements in States which have enacted laws regulating the practice of medicine.

PHYSIOLOGY OF THE SEMICIRCULAR CANALS.

In a series of articles communicated to the *Philadelphia Medical Times*, by Dr. Burnett, entitled "Report on the Progress of Otology," a review is made of a contribution by Dr. Baginsky, of Berlin, on the above interesting subject (*Archiv f. Anatomie u. Physiologie*):

There are two views held by physiologists concerning the cause of the phenomena induced by experimentation upon the semicircular canals,—namely, first, that they are due to an irritation so great as to produce a paralysis of the vestibular branches of the acoustic nerve, and, secondly, that they are induced simply by an irritation of the brances of this nerve. Baginsky's experiments, conducted with careful attention to and regard for the anatomical relations between this part of the ear and the brain, force him to reject both of the views stated. He maintains that the cause of these phenomena must be sought in the connection between the labyrinth and the subdural cavity, by means of the aqueducts of the cochlea and vestibule, and also in the proximity to the cerebellum. These relations of the parts render easy a lesion of the brain whenever the labyrinth is experimentally invaded, and these cerebral lesions are competent to produce all the phenomena which are known to ensue. Dr. Baginsky feels that he is further corroborated in his views and conclusions by the fact that isolated injuries of the cerebellar tissues near the ear are followed by exactly the same kind of manifestations, and also because late anatomical investigations have shown that the old view of the division of the acusticus into a cochlear and a vestibular branch is incorrect. He therefore thinks the discussion of the subject is narrowed to the question whether the phenomena occurring after section of the semicircular canals are caused by a labyrinth-lesion or by injury to the brain, and especially to the question, What is the nature of the labyrintho-cerebral lesion?

He maintains that it is not a paralysis of the vestibular nerve-branches which causes the vertigo, because there is an absence of all vertiginous symptoms when complete destruction of the labyrinth is effected, and also because complete degeneration of the labyrinth, which can be brought about experimentally on animals, is unaccompanied by any such manifestations of vertigo. In such cases, though complete paralysis of the acoustic nerve must of course be induced, no disturbance in equilibrium is observed.

But what has *mere irritation* of the acoustic branches in the vestibule to do with these phenomena? This, too, cannot explain the vertiginous symptoms, since in the experiments by injection into the labyrinth upon rabbits, notwithstanding intense inflammation of the labyrinth, the cochlea, and the vestibule, as observed postmortem, the vertiginous symptoms observed during the pressure by injections did not persist after the cessation of such pressure, notwithstanding the continuous irritation of the presence of a ten to fifteen per cent, solution of chloride of sodium in the labyrinth.

Baginsky is further strengthened in his opinion by the fact that, whenever the fluids injected into the tympanic cavity produced symptoms of vertigo by pressure, it was found that the injected fluid had found its way into the jugular fossa through the aquæductus cochleæ, and also that many of the animals experimented upon and then allowed to live subsequently died with symptoms of meningitis,—a proof, it is thought, that by the experiment a leison of the brain must have been produced.

It has been admitted that the symptoms in question could be evoked by irritation of the brain,—that is, of the cerebellum; but it has also been claimed that the vertiginous symptoms could be produced by injury of the labyrinth alone. Especially, of Hogyes, (*Pfluger's Archiv*, Band XXVI) essayed to prove this by a new method of investigation. He concluded that the vertiginous phenomena evoked in Baginsky's experiments by pressure in the tympanic cavity, as well as the nystagmus, were due to exhaustion or a gradual paralysis of the membranous labyrinth. He further endeavored to show that there exists a certain relation between the mechanism of the associated bilateral ocular movements and both vestibular portions of the acoustic nerves. In his experiments, Hogyes opened the fossa mastoidea (brain-cavity) in the living rabbit; the portion of the brain lying immediately beneath the opening thus made he pushed carefully farther into the cranial cavity, and from this point bored into the labyrinth and applied various irritants, in consequence of which, in his opinion, by irritating certain parts of the labyrinth, specific and characteristic motions of the eyes, with simultaneous rotatory movements of the head and vertigo, ensued. After destruction of the membranous parts of the labyrinth, subsequent to these experiments, renewed irritation of the wall-surface in the vestibule was not efficient to produce nystagmus and turnings of the head. Finally, after destruction of the membranous labyrinth, when injections were made through the tympanic cavity, according to Baginsky's method, no vertiginous symptoms ensued. To this Dr. Baginsky objects that the Hogyes method of experimentation is very fallacious, because, instead of the brain being left intact, and every remote possibility of such lesion being excluded, the cranial cavity has been deliberately opened at a point extremely near the cerebellum. Furthermore, Hoyges pushed the portion of brain exposed beneath the point of incision farther into the cerebral cavity, although there was no room for it in the cranial capsule, and it is claimed that such pushing cannot be done without further squeezing and tearing it and injuring neighboring parts. Dr. Baginsky, therefore, endeavored to repeat Hogyes's experiments. He states that if the fossa mastoidea in the living rabbit be broken open, the convolution of the brain lying beneath this spot of the cranium is exposed, and that insertion of this part of the brain farther into the cranial cavity is impossible; and also the most careful and skillful operator is not always able to open the vestibule, as very often the cerebral or tympanic cavity is opened by mistake instead. The spot operated upon is so small and so difficult to get one's bearings in as to render it doubtful whether Hogyes really is able (as he claims to be) to expose and irritate, at will, the utriculus and the horizontal and vertical ampullæ in the living rabbit. Removal of the portion of brain in the fossa mastoidea above the tegmen tympani is not usually followed by any phenomena. Sometimes, however, in some of the experiments, bilateral nystagmus was manifested at the moment of ablation of the aforesaid portion of the encephalon, but it disappeared quickly. The same phenomenon is sometimes reproducible by pressure on the pedicle of the detached cerebral convolution aforesaid. If the animal, after such an operation, is permitted to get from the table, it runs about with normal actions and movements. Not so if the labyrinth has been opened. Then there ensues a bilateral and intense nystagmus, preceded usually by fixation of the eyes and subsequent convulsive rotations. With the nystagmus, in almost all the cases, there is perceived the Magendie ocular position,—namely, the eye on the side operated upon looks upward and outward, while the eye of the uninjured side looks downward and inward.

This position of the eyes is not constant, however, since sometimes with a nystagmus the axis of the eyes is normal, and sometimes the eye on the uninjured side points upward and outward. The other appearances of the eyes are extremely various. Very often the severe nystagmus disappears gradually, and the eyes return to their normal position and condition. When the animals thus operated on are placed upon the floor the nystagmus usually begins again: also there appear marked oscillations of the head, revolutions about the long axis, and the so-called "watch-hand" rotations of the body, usually towards the side operated on. Often there are revolutions backward. These involuntary motions may cease for a time, and the animals lie upon the ground. Gradually the animals rise, and, if urged to walk, generally fall towards the operated side. A postmortem examination immediately after death reveals, in most of the cases, macroscopic changes in the cerebellum and vicinity. Hæmorrhages are found on its surface, under the dura and pia, and often in the substance of the cerebellum. They may also be found in the peduncles of the brain and upon the vermiform process. In some of the experiments, in which during life the above-named phenomena appeared, macroscopic changes upon the brain-surface were not observed. In all cases, however, in which the phenomena appeared the labyrinth had been broken into before death by the experimentation, and after death was found filled with blood. Besides these successful experiments upon the labyrinth, there were some instances in which, at the postmortem examination, the labyrinth was found not to have been opened, but in which, nevertheless, all of the *aforesaid disturbances were exhibited.* In such cases it was found that the gimlet had entered beside the labyrinth, and penetrated the tympanic cavity, and in these cases, at the postmortem examination, deep lesions and hæmorrhages were discovered in the cerebellum. The conclusions drawn from these experiments are that in some cases ablation of the small portion of the brain exposed by the incision of the mastoid fossa in the rabbit produces nystagmus, usually attended with the Magendie ocular movements already described, swingings of the head, axial and so-called watch-hand movements, and backward revolutions of the body. These disturbances did not always correspond to the wounded side, but appeared sometimes in a reversed order. But all of these results by Baginsky are diametrically opposed to the asserted results of Hogyes.

The latter maintains that mere breaking into the labyrinth produces *none* of the peculiar alterations in equilibrium.

The question between these two observers still is, are the phenomena due to lesions of the labyrinth or of the brain? Baginsky holds that a close scrutiny of his experiments indicates a brain-lesion, which can be and has been shown postmortem, but how it comes about must yet be proven. It is held by Baginsky that the Hogyes methods of experiment, namely, breaking open the skull (mastoid fossa), removal of the subjacent cerebral lobe, and breaking into the labyrinth—are all sufficient causes for cerebral hæmorrhages and compressions, as found postmortem, and which would have been found by Hogyes had he searched for them.

Baginsky then abandons the rabbit as unsuitable for these experiments, because the mechanical opening of the labyrinth without wounding the brain is impossible in this animal. He therefore chooses dogs, in which, after opening the bulla ossea (behind the ear and in the neck), the labyrinth is easily reached without wounding the brain. Some experiments of this kind were performed without narcotizing the animals, in order to escape the imputation that the phenomena attributed to irritation of the acoustic branches in the vestibule were really due to narcosis rather than to the operations of the experimenter. Therefore the animals experimented upon were kept only slightly etherized until the bulla ossea was opened. The anæsthetic effects were then allowed to pass off and the animal to recover perfect consciousness. Then when the animal had become active and lively the labyrinth was opened by boring with a gimlet and the animal placed upon the ground, in order closely to observe any disturbance which might arise in the function of equilibrium. In some cases the animals thus operated upon showed no abnormal symptoms. They ran about, showing no disturbances in the muscles of the eyes nor in their own movements, and yet when these animals were killed, as they were a short time after these experiments, the labyrinth was found to have been opened and to have become filled with blood. On the other hand, in the majority of cases operated on the following symptoms were observed. Immediately upon irruption of the labyrinth an excessive ambilateral nystagmus was observed, the eyes rolling unceasingly about, and there was also at the same time a narrowing of the pupil on the incised side, and in some cases an insensibility of the cornea, and also at times loss of ability to close the upper eyelid. When placed upon the ground or the floor, these same animals fell upon the incised side, and could with difficulty rise. At every endeavor so to do, the most violent vertigo ensued. The involuntary movements consisted in revolutions about the long axis in some cases, and in others in the so-called watch-hand revolutions of the trunk. These usually terminated by falling and lying upon the ground. Each new endeavor to rise and move forward was followed by the renewal of the vertiginous symptoms. Sometimes tough saliva and mucus came from the mouth and nose.

Gradually the severe symptoms abated, and in one and a half to two hours after the operation the dogs were able with difficulty to maintain their equilibrium by walking with their legs apart and with occasional falls to the right or left.

Some of the dogs were killed immediately after the operation, but the postmortem examination revealed no demonstrable changes in the brain. Others were allowed to live: of these some died of the results of the operation a few days later, and at the postmortem examination profound œdema of the brain and of the ventricles, with hyperæmia of the ventricles, was found. The majority of these animals lived, and in these observation revealed that nearly all the phenomena gradually ceased to appear. First, the nystagmus in the course of twenty-four or thirty-six hours; then the falling tendency, which latter could be re-excited, at most to a very slight extent, however, by short turnings and twistings of the animals. The anæsthesia of the cornea also disappeared. The pose of the head, in some of the animals, did not become normal, as the animals held the head so that the eye on the incised side looked downward and the eye of the untouched side looked upward. Upon killing these animals subsequently, no cerebral lesion could be found; but the labyrinths in such animals, killed somewhat sooner, were found in the highest degree of inflammation. In others, which were killed somewhat later, cicatricial tissue was found in the labyrinth.

A review of the phenomena resulting from operations on the labyrinth of dogs, as in the case of rabbits, shows the greatest variability and interchange of symptoms following the same irritation, or one at least intended to be of the same nature. In one case irruption of the labyrinth produces no disturbance; in another there are produced excessive involuntary symptoms in the management of the eyes and of the muscles of the body, the latter so variable that in the same animal turnings, revolutions about the long axis, and revolutions backwards closely follow one another. In some of these cases there was narrowing of the pupil, and in others insensibility of the cornea.

Dr. Baginsky then asks the question whether the underlying cause in these cases is an isolated irritation of the vestibular branches of the acoustic nerve, or whether other disturbances underlie the phenomena. He admits that an irruption into the labyrinth and the consequent escape of the perilymph can cause an irritation of the vestibular nerves; but by supposing such a cause as competent to produce the phenomena it is not possible to explain the absence of all disturbances in some of the aforesaid experiments, and also the interchangeability of some of the symptoms; and, on the other hand, so far as the anatomical proof of a brain-lesion is demanded in the case of the aforesaid experiments on dogs, it is impossible to adduce it from the postmortem conditions. A great difficulty arises here,

—all the more important since all those authors who seek the cause of the disturbances under consideration in an irritation of the vestibular branches of the acusticus are always referred to the want of an anatomically demonstrable brain-lesion in support of their views. Then, too, the anæsthesia of the cornea in other cases must be explained, since we know that it is referable to a lesion of the trigeminus, and especially to a branch in no way related to the ear. This Dr. Baginsky explains by alterations in the hydrostatic and hydrodynamic relations in the cranial cavity, productive of irritation at the base of the brain, as he can evoke similar phenomena by rapidly revolving dogs on the turning disk. Furthermore, all these phenomena may be produced by rapidly revolving dogs previously rendered deaf in both ears.

The conclusion from these experiments by rapid revolutions, therefore, is that, for the production of vertiginous spmptoms the existence of one or of both labyrinths is not necessary, and that they can occur without any anatomically demonstrable cerebral lesion, simply and alone from disturbances in the circulation and changes in the pressure in the cranial space.

If these results be applied to the experiments on the labyrinth already detailed, it is evident that an anatomically demonstrable lesion of the brain is not necessary to produce the vertiginous symptoms under consideration. There is necessary only a disturbance competent to produce an irritation in that portion of the brain from which similar or identical phenomena may be evoked. If the reflex excitation of the brain for any reason should fail to be evoked, then the resultant disturbances are looked for in vain, notwithstanding the artificial opening of the labyrinth, and notwithstanding the irritation of the vestibular branches of the acoustic nerve. The question whether, in these experiments of Baginsky's, the brain is secondarily affected can be answered only in the affirmative, in view of the anatomical relations, the connections between labyrinth and ear, and the common blood-supply. This becomes all the more probable when in a physiological experiment a series of disturbances are observed, like anæsthesia of the cornea, which can only be explained by reference to a lesion of the trigeminus at the base of the skull. It is altogether another question how these lesions occur. Whether they are induced by sudden reflux of the cerebro-spinal fluid after opening of the labyrinth, or through changes in the circulation, or through frictions of the brain on the base of the skull, with concomitant action of both the first factors, demands further investigation, which Dr. Baginsky proposes to make at some future time.

It is evident that these careful and elaborate experiments of Dr. Baginsky do much toward clearing up the function, and settles many mooted anatomical points about the arterial and nervous supply of the inner ear.

THE CAUSATION AND TREATMENT OF SCARLATINA.

A valuable contribution to the literature of this subject is made by Dr. Whitla in the *Dublin Journal of Medical Sciences*, in which the writer summarizes pretty carefully the present state of our knowledge. The investigations of Pohl-Pincus, Klein, Eklund and Octerlony are discussed, but the conclusion reached that, as yet, the living organism of scarlatina has not been demonstrated or isolated. Much still is known regarding its nature. It is the most tenacious of all contagions. It will survive heat up to near the boiling point, and a freezing temperature does not destroy it. In England its virus is always more active in autumn. How does it enter the system? The writer cites cases where a lancet has carried the disease, but thinks in the great majority of cases the route of contagion is the pulmonary tract and the throat, first taking effect in the fauces. The ingestion of articles of food which have stood in the sick room appears, in some cases, to have caused the disease, so that it may possibly be absorbed by the stomach. The evidence that the disease may be communicated through the medium of a third party, the writer states, is overwhelming. The carrying of the disease by clothing, toys, letters, flowers, and even locks of hair from the sick-room are mentioned. Domestic animals are another medium. Regarding contagion by means of milk, the writer states that these cases have been found to be from the existence of the disease in the man who delivered the milk, the person who milked the cow, or, more often than either, the presence of scarlatina in the house where the milk was strained, mixed, or allowed to stand. No authenticated cases of disease in the cow were found. The author denies that scarlatina is even a drain disease, in the sense that the poison may be generated there *de novo*. There is not, even to his mind, satisfactory evidence that the general ill effect of bad sewerage render a patient more liable to the disease, or render the attack more virulent. The disease has continued to deepen in extent and gravity in the face of all modern improvements in sewage management. Emphasis is laid on the fact that it is the *pulmonary and cutaneous exhalations* which are the active agents in spreading the disease, and *not the epithelial scales of desquamation*. There is no doubt that the disease is highly contagious as soon as the rash appears, and analogy would render it at least probable that it may be conveyed during the period of incubation. Inoculation of animals with the scales of desquamation has almost always failed to produce scarlatina. The common rule of isolating scarlet-fever patients for six weeks, is considered a safe one; yet, if convalescence be retarded, it may be well to extend the period to nine weeks. Stress is laid upon three points: (1) The poison from the mildest case may produce the most deadly form. (2) In no disease is the part played by individual susceptibility so striking. (3) This susceptibility runs in families, and is often noticed in the most robust members. The period of incubation is believed to be shorter than is generally supposed. The writer is of the opinion that the rule is three or four days; numerous cases are referred to in which it was only one or two days. To prevent the patient from spreading the disease, rigid and immediate isolation, disinfection of everything which has come in contact with his person, anointing the body with some disinfecting ointment, scrupulous cleansing of the body with tepid baths, or sponging with a solution of Condy's fluid, are all things to be insisted on in every case. The writer has no faith in cutting short the disease by destroying the virus at its point of entrance, the throat, during the preliminary stage. It is compared to the excision of a chancre to prevent syphilis. Quinine and the sulpho-carbolate of soda are believed to do great good by reducing temperature, but do not shorten the disease. The reckless dosing with chlorate of potash is often productive of great harm, as is also the too free use of carbolic acid internally and about the patient; both are believed to increase the liability to renal complications. Great success is claimed for free and fearless purgation by croton oil and the use of the hot pack in treating uræmic convulsions. A dozen cases are mentioned as having been so treated successfully.

THE IMPORTANCE OF EARLY PARACENTESIS IN TREATMENT OF ASCITES.

In a communication to the *Practitioner*, Dr. Drummond, of Rome, argues that delaying the operation of paracentesis until it becomes a mere palliative measure is an old practice that is still too frequently the only resort. Proper diet, with a minimum of fluid, and such medicines as acetate of potassium, sulphate of magnesium, nitrous ether, jalaps, elaterium and other hydragogue cathartics, and still more perhaps, digitalis, cascara or convallaria majalis, are no doubt useful, especially in the early stages. All these, however, and many more similar preparations, will only excite illusive hopes.

If the fluid be removed by *early* and, if necessary, *repeated* "tapping," followed by well-regulated, firm pressure, then these remedial agents become really potent for good.

While it is generally held that such a course of treatment is more especially useful in dropsy dependent upon cirrhosis, Dr. Drummond has found it not less successful in cardiac and renal dropsy, and, in a fair proportion of cases, it has proved *curative*, while in all it has diminished the patient's sufferings, and made his invalid state endurable. When an advanced form of Bright's disease, a progressive cardiac lesion, malignant or albuminoid disease of the liver, or like inevitable fatal malady, stands behind, it can of course only be palliative, but it is a *real* one; it robs a necessary fatal illness of its worst horrors; gives literally a *breathing space*, a respite from unavoidable suffering, and adds some weeks or months of comfort to a doomed existence. When, however, the ascites depends on a cause which is temporary—wholly removable or capable of becoming stationary—then paracentesis so practiced is the chief means of cure. In any case the author insists strongly on the importance of an early recourse to it, as adding tenfold efficacy to otherwise important therapeutic means.

THE CHILD-BEARING PERIOD OF AMERICAN WOMEN INCREASING.

Dr. Chadwick, of Boston, expressed the following views at the Washington session of the American Gynæcological Society:

I have made a few investigations in regard to the early appearance of menstruation with reference to women of various nationalities in this country. In the examination of over four thousand cases it was found that American women menstruated earlier than women of other nationalities examined. Furthermore, American women of American parentage, began to menstruate earlier than American women of foreign parentage. Scarcely enough observations in reference to the menopause have been made to justify absolule conclusions, but I find to my surprise that the menopause is appearing later in American women. If this is corroborated, the conclusions would be that the child-bearing period is greater in American women than in women of other countries. The fact that the child-bearing period is increased both at the beginning and the end, should be taken as an indication of added vigor. There is no question of the fact that the number of children to a family is diminishing, but this can be accounted for by social influence and is common to all civilized communities.

CONDENSATIONS.

TEN THOUSAND DOGS have been sacrificed to the hydrophobia scare in London.

ALFRED C. POST, M. D., LL. D., one of the most distinguished surgeons of New York, died February 7, 1886, in the eighty-first year of his age.

SMALL-POX.—The total number of deaths from small-pox in the city of Montreal from the beginning of the epidemic in April until December 31, was three thousand one hundred and sixty-four.

MORPHINE HABIT.—It is estimated that fully three-fourths of all the morphine manufactured is used for purposes of self-indulgence in the morphine habit.

YOUTHFUL PARENTS.—W. H. Allen (England) reports a case in which a girl thirteen years and six months old bore a nine pound baby, the father being a boy fourteen years old.

THE treatment of diphtheria by the galvano-cautery is pronounced to be wonderfully effective by Dr. Bloebaum, of Cableuz. He has tried it both on animals and man. A single thorough cauterization causes a remarkable change in the character of the diseased surface.

COCAINE is continuously being reduced in price. This is not the result of the much lower cost of the crude drug, nor to any increase in the yield of the alkaloid, but to improved methods of production. A few months ago it was quoted at fifty cents a grain when now it can be obtained for one-tenth that amount.

CONTINUATION OF CHOLERA IN SPAIN.—Latest advices show that cholera has broken out in the province of Cadiz, on the western side of the sea into which Gibraltar projects on the east; also in the province of Malaga, which lies along the sea coast. It is further stated that cholera still tends to recur in the neighborhood of Brest.

THE building of three crematories in the Pere La Chaise cemetery, in Paris, have been given to a contractor. They are not to be open for public use, but are designed for burning what remains of the four thousand and more subjects annually used in the dissecting-rooms of the hospitals. The old way of disposing of them was by burial.

THE first successful excision of an endocranial tumor was recently made by Dr. Durante, of Rome. The patient was a middle-aged women, with a fusi-cellular sarcoma arising from the dura mater at the base of the left anterior lobe of the brain. The growth caused left exophthalmos, loss of sense of smell on the left side, and mental hebetude. The patient made a good recovery.

ALBUMEN IN URINE OF CADAVERS.—Drs. Vibert and Ogier have recently made the discovery that albumen is present in the urine of cadavers in eighty per cent. of the bodies examined. They concluded that the albumen is produced by the decomposition of vesical mucus. This discovery is significant, since death has been attributed to albuminuria in cases where no other cause could be discovered, simply because a chemical test demonstrated the presence of albumen in the urine.

BILLROTH'S VIEWS ON ANTISEPTICS.—This eminent pathologist writes the following on antiseptics: (1) Iodoform is the safest and most effective of all manageable antiseptics. (2) Moss, wood-turf, mould, and oakum are useful when there are discharges from the wound. (3) Corrosive sublimate in dilute solution is practically inert as an antiseptic to wounds and renders the patient and surgeon alike liable to mercurial poisoning. (4) Carbolic acid, which is known to be dangerous in strong solutions, is, in very weak ones, as good for wound irrigation as clean water, but probably no better.

THE Plymouth (Pennsylvania) water company is now gathering its harvest from the infection sown about one year ago. Fourteen suits have been brought against it in the courts by the relatives of those who died of typhoid fever last summer. Should the plaintiffs succeed in recovering judgement for damages against the company it will be a lesson in sanitary science for other companies to heed. Such instruction will teach them that the public health, of which they are so largely the conservators, is a trust so sacred that they must use the utmost precautions to prevent the conveyance of disease through water they supply.

THE first volume of *Drugs and Medicines of North America* consists of three hundred and four pages. Its authors, John U. and C. G. Lloyd are to be congratulated upon the excellence of the work; it being the most complete contribution to the knowledge we possess of the drugs indigenous to this country. The authors have shown an unusual amount of patience and energy in their efforts to be accurate, both in text and illustrations. We cannot say what the financial success of the enterprise has been, but this we know, that they have made a high and honorable record. We hope our readers will see the importance of supporting their efforts and assist in forwarding such praiseworthy industry.

THE *Weekly Medical Review*, of Saint Louis, is now published under the auspices of the Medical Press and Library Association. This body has been incorporated with a view of compiling, publishing, and preserving the medical literature of the Mississippi Valley. The work of the Association has been arranged into departments which represent the various specialties and branches of medical science. The reports of two or more of these departments will be given in each number of the *Review*. The first issue under the new management can receive none but the most favorable criticism; and we most cordially recommend it to our readers as a journal which promises to be first-class in every particular.

THE *Denver Medical Times* puts the matter of abortion in the following forcible anecdote: A woman carrying her twelve months' old child consulted a doctor to have an abortion performed, giving as her reason that she could take care of one child but not two. "Do you want one of them destroyed?" suggested the doctor. "Yes," replied the mother, with lowered voice and dropping her head. The doctor seized a hatchet and rushed at the child in her arms as if to brain it. "In Heaven's name," shrieked the mother, "do you mean to murder my darling?" "Madame," replied the doctor, "you want one of your children killed. I prefer to kill the one in your arms, for in attempting to kill the other I might possibly also kill you, and thus be a double murderer."

FAITH SHOULD HAVE THE CREDIT.—Dr. Robert T. Morris, in the *Record* writes: "Not long ago, while I was seated in a country dentist's office, a farmer dropped in to have a tooth pulled. The tooth came out as hard as a sassafras-root, and the patient pranced around on one foot until the dentist said that he could stop the pain 'if the patient wished.' The patient was willing and the dentist, taking up a dainty wad of cotton, dipped it in a solution of cocaine and touched it for an instant to the region of blood, saliva and pain. Then standing before the patient with an expression of confident expectancy on his face, asked, 'Is the pain all gone?' The patient gave one glance at the countenance spread out before him, said that the pain had all departed, and began to talk cheerfully on some ordinary topic. Turning to me, the dentist remarked upon the exceeding value of cocaine in dental practice, and said that he believed it would come to be used by the general medical profession before long."

THE WAY SOME DO IT.—The "trade" in homœopathy is not as well systematized in Michigan as it is in New York as appears from accounts given in the *Record*. The editor of this popular journal received the announcements of a "new up-town homœopath," which is illustrative of how the homœpath business is driven in that city. The announcements in question were mailed to the clergymen, and to the neighbors and friends, and to the business men of the vicinity. First, is a card, with name, address, etc., upon it; next is a neatly printed note signed by several homœopaths of neighboring cities, and stating that Dr. X. is a skillful homœopath, and most "solid" in the faith; last comes a folded card, vest-pocket size, containing a brief popular essay on pure homœopathy and its advantage.

The *Record* wisely comments that the significance of it all is, that certain men believe that they can succeed by announcing, not that they are physicians, but that they are homœopaths. *They trade upon the name as quacks do upon their specially potent pills;* and such men are to be treated like any other quacks.

The Attorney-General of this state has given to the State Board of Health an opinion which is adverse to the county boards of supervisors having power to build county pest houses. The attorney says: "I find no where in the statute any authority vested in the board of supervisors to act in the enforcement of execution of health laws. The entire enforcement of such laws appears to have been left with township boards of health, and to be treated as a township matter. They can only raise moneys for the purposes specified in the statutes, and that is for county buildings. Insomuch as the law relating to health, and the enforcement of the same, and establishment of hospitals, has placed these matters in the hands of township officers, I doubt whether a pest house or hospital can be termed a county building proper. As far as my knowledge extends, no county in the state has undertaken to erect and run a pest house." It is well for physicians to know that this power is vested in town and city authorities. It is an important duty, and the officials having it to execute, should fully understand that they have this function to fulfill.

NEW PUBLICATIONS.

LECTURES ON THE DISEASES OF THE NOSE AND THROAT. Delivered during the Spring Session of Jefferson Medical College. By Charles E. Sajous, M. D., Lecturer on Rhinology and Laryngology in the Spring Course of Jefferson Medical College; one of the physicians in charge of the Throat Department, Jefferson College Hospital; Ex-President of the Philadelphia Laryngological Society; Fellow of the American Laryngological Association; Corresponding Member of the Royal Society of Belgium and of the Medical Society of Warsaw (Poland), etc., etc. Illustrated with one hundred chromo-lithographs, from oil paintings by the author, and ninety-three engravings on wood. 8mo: four hundred and thirty-nine pages. Philadelphia: F. A. Davis, Attorney, 1217 Filbert street.

A course of lectures delivered by Dr. Sajous, constitutes the basis of this work. The text retains enough of the lecture style to make it entertaining. The chief feature of the work is the one hundred chromo-lithographs, illustrating the anatomical and pathological appearance and condition of the regions and parts considered. In these colored illustrations the practitioner can see a true and correct representation of the normal and diseased parts. In the execution of such an undertaking, the correct coloring was the important part. In this the author has shown great perseverence, and manifested ability in the role of artist, as well as that of anatomist. Such work cannot be safely delegated to one unfamiliar with the structure and appearance of the part.

The author's clinical facilities have enabled him to put to practical test new remedies and measures recommended in the treatment of these obstinate diseases, and only those, as found by him, to possess advantage over those longer in use, have received mention, and only those as producing the best results being recommended.

Written by an American practitioner, who has studied the diseases as met in this country, the book is eminently the one to be read by the American physician.

MANUAL OF THE DISEASES OF WOMEN: Being a Concise and Systematic Exposition of the Theory and Practice of Gynæcology. For use of Students and Practioners. By Charles H. May, M. D., Late House Physician at Mount Siani Hospital, New York; Assistant to the Chair of Ophthalmology, New York Polyclinic; Clinical Assistant Department of Ophthalmology, Manhattan Eye and Ear Hospital, New York. 12mo: three hundred and fifty-seven pages. Philadelphia: Lee Brothers & Company, 1885.

The highest degree of conciseness and clearness has been attained in this work. It is all its title states: "A concise and systematic exposition." Concise in plainly stating the theory and omitting the argument; in *word* synopses and not *wordy* sentences. Systematic in the arrangements of the subjects, and in the logical manner in which the matter is stated. It bears the stamp of being the work of a teacher. Without question, the student and physician will buy it.

WEISSE'S PRACTICAL HUMAN ANATOMY: A Working Guide for Students of Medicine and a Ready Reference for Surgeons and Physicians. By Fanueil D. Weisse, M. D., Prosector (1863 to 1865) to the Late Valentine Mott, M. D., L. L. D.; Emeritus Professor of Surgery and Surgical Anatomy, Medical Department of the University of the City of New York; Professor of Practical and Surgical Anatomy, Medical Department of the University of the City of New York; Professor of Anatomy, New York College of Dentistry. Illustrated by two hundred and twenty-two lettered plates, containing three hundred and twenty-one figures. One Volume. Royal octavo: four hundred and sixty-eight pages of text. Cloth, $6.00; Leather, $7.00. New York: William Wood & Company, 1886.

The anatomy of the human body is not made use of by the practicing physician, to the extent that it should be, owing partly to the fact that a practical study of the science embodies too much inconvenience and hazzard, but probably due in a great measure to the too purely schematic or systemic arrangement of the great majority of text-books treating upon the subject. To remove this latter difficulty, and to furnish a work that would prove "a companion to the surgeon and the physician, to keep them in mind of the practical facts of anatomy," Dr. Weisse began, twenty years ago, the preparation of a book of reference which would take the place of the cadaver for practitioners of surgery and medicine, and furnish a practical working-guide for the student at the cadaver. The author's long experience as a teacher of human anatomy, and with twenty years practice and experience in the dissecting-room, specially prepared him for the task. In addition to this most essential training, it required long years of patient pains-taking labor. The two hundred and twenty-two full-page plates were executed from original drawings, taken from special dissections made by the author himself. These plates represent a progressive series of dissections of the various regions and organs. Each plate illustrates the structures of a given plane, and does not attempt to show structures superficial to or below that area. "Too much cannot be said in praise," says the author in his preface, "of the comparatively wonderful artistic skill displayed by Mr. Maximilian Cohn, in his faithful reproduction of nature, given us in the Plates, and Plate Figures;" neither can too much be said in praise of the grand liberal motives of the author, which influenced him to contribute all his labor, and the whole expense of producing these plates, that the publishers could offer the book at a price no greater than that paid for the average text-book? Without this most generous contribution the work, on account of its cost, would have been beyond the reach of ownership of the student or average practitioner. If remunerative in no other sense, the author has pleasure in that his years of unselfish and patient labor have attained the desired end. He has produced a magnificent book, an opportune work; a literary monument to mark the crowned success of earnestness in work.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By Charles Hilton Fagge, M. D., F. R. C. P., Physician to, and Lecturer on, Pathology at Guy's Hospital; Examiner in Medicine in the University of London; Senior Physician to the Evelina Hospital for Sick Children, etc. Including a Section on Cutaneous Diseases by P. H. Pye-Smith, M. D., F. R. C. S., Lecturer on Medicine at Guy's Hospital: Chapters on Cardiac Diseases by Samuel Wilkes, M. D., F. R. S., Physician to Guy's Hospital and to the Royal Hospital for Children, London: and Complete Indexes by Robert Edmond Carrington, M. D., Assistant Physician to Guy's Hospital, London. Volume I. 8mo: one thousand and forty pages. Philadelphia: P. Blakiston, Son & Company, 1886.

Let this volume be opened at random and before a page of its text is read it becomes evident that the book is not a mere compilation of other men's ideas, but that it was the work of a grand intellect that was capable of original thought. In the editor's preface we are informed that Dr. Fagge occupied his best energies for more than twelve years on this work. "The whole of the vast field of internal pathology and therapeutics had been traversed, and the account of it now before the reader, had been written—much of it twice written—by Dr. Fagge, with two exceptions." He was engaged upon the subject of "Cardiac Disease" at the time of his death. The unfinished portion has been ably supplied by Dr. Wilkes. The section on "Skin Diseases" had not been begun, which has been added by the editor.

The work is such as one would expect from the pen of a man, who during life was eminently a great worker, an investigator of quick perception and great memory. These qualities combined with great patience in observation, made him specially fitted for medical work. All through his work are abundant proofs of his greatness as a physician.

In his pathology he is safe and reliable. He was too earnest to deal in speculations. In therapeutics, fearless and original. His intellect was too suggestive to follow in the footsteps of others. The style is smooth and pleasing, yet the thoughts are strongly and forcibly stated. The publishers, Messrs. P. Blakiston, Son & Company, merit the sincere thanks and lasting gratitude of the American profession for their enterprise in forwarding so valuable an addition to medical literature.

BOOKS AND PAMPHLETS RECEIVED.

THE YEAR-BOOK OF TREATMENT FOR 1885. A Critical Review for Practitioners of Medicine and Surgery. 12mo: three hundred and sixteen pages. Lea Brothers & Company, 1886.

A NEW DEPARTURE IN UTERINE THERAPEUTICS: THE DRY TREATMENT. By George J Englemann, M. D., Saint Louis. Reprinted from *Saint Louis Courier of Medicine*, January, 1886.

OVERWORK AS RELATED TO INSANITY. By Orpheus Evarts, M. D., Medical Superintendent of the Cincinnati Sanitarium. Vice-President Association of American Superintendents of Insane Hospitals, etc., etc.

DRAINAGE FOR HEALTH; OR EASY LESSONS IN SANITARY SCIENCE. By Joseph Wilson, M. D. Second edition, with important additions. 8mo: seventy-four pages. Cloth, $1.00. Philadelphia: P. Blakiston, Son & Company, 1886.

FRACTURES AND DISLOCATIONS. By T. Pickering Pick, F. R C. S., Surgeon to, and Lecturer on, Surgery at Saint George's Hospital; Member of the Court of Examiners, Royal College of Surgeons of England. Illustrated with ninety-three engravings. 12mo: five hundred and twenty-four pages. Philadelphia: Lea Brothers & Company, 1886.

COAST DEFENSES AGAINST ASIATIC CHOLERA. Report of an Inspection of the Atlantic and Gulf Quarantines between the Saint Lawrence and Rio Grande. By John H. Rauch, M. D., Secretary Illinois State Board of Health. Springfield, Illinois: H. W. Rokker, State Printer and Binder, 1886.

PROCEEDINGS AND ADDRESSES AT THE SANITARY CONVENTION HELD AT YPSILANTI, MICHIGAN, JUNE 30, AND JULY 1, 1885, under the Direction of a Committee of the State Board of Health and a Committee of Citizens of Ypsilanti. (Supplement to the Annual Report of the Michigan State Board of Health for the year 1885). By Authority. Lansing: Thorp & Godfrey, State Printers and Binders, 1886.

THE FIELD AND LIMITATION OF THE OPERATIVE SURGERY OF THE HUMAN BRAIN. By John B Roberts, A. M, M. D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic; Surgeon to Saint Ma y's Hospital. 8mo: seventy-seven pages. Cloth, $1.25. Philadelphia: P. Blakiston, Son & Company, 1885.

HOW WE TREAT WOUNDS TODAY. A Treatise on the Subject of Antiseptic Surgery which can be Understood by Beginners. By Robert T. Morris, M. D., Late House Surgeon to Bellevue Hospital, New York; Member Linnæan Society of Natural History, New York; Member New York County Medical Society. 12mo: one hundred and sixty-one pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1886.

SEVENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS, with an Appendex embracing the Sanitary Publications of the Board during 1884; Sixth Annual Meeting of the Sanitary Council of the Mississippi Valley; Organization and Proceedings of the National Conference of the State Boards of Health; Vital Statistics of Illinois, 1881 to 1884; Decisions Under Medical Practice Laws; Medical Education in the United States and Canada, 1765 to 1885. Springfield, Illinois: H. W. Rokker, State Printer and Binder, 1885.

A NEW ELECTRIC LIGHT FOR THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE NOSE AND THROAT WITH A PRACTICAL DEMONSTRATION. By Dr. William Chapman Jarvis, Clinical Professor of Laryngology and Diseases of the Throat in the Medical Department of the University of the City of New York; Fellow of the American Laryngological Association; Member of the New York Academy of Medicine, of the Medical Society of the County of New York, etc., etc. Read at the Seventy-ninth Annual Meeting of the Medical Society of the State of New York, February 4, 1885. Syracuse, New York: Smith & Bruce, 1885.

LECTURES ON SYPHILIS. Delivered at the Chicago College of Physicians and Surgeons. By G. Frank Lydston, M. D., Late Resident Surgeon at Charity Hospital and at State Emigration Refuge and Hospital, New York City; Lecturer on the Surgical Diseases of the Genito Urinary Organs, and on Venereal Diseases, in the College of Physicians and Surgeons; Professor of the Principles and Practice of Surgery in the North-western College of Dental Surgery; Attending Surgeon to the Genito-Urinary and Venereal Department of the West Side Dispensary; Member of the Chicago Medical Society, of the Chicago Pathological Society, etc., etc. Reported by W. A. Walker, A. M., M. D., Attending Physician to the West Side Dispensary Chicago: A. M. Wood & Company, 1885

BRAIN-REST: Being a Disquisition on the Curative Properties of Prolonged Sleep. By J. Leonard Corning, M. D., Formerly Resident Assistant Physician to the Hudson River State Hospital for the Insane; Member of the Medical Society of the County of New York, of the New York Neurological Society, of the New York Academy of Medicine, of the American Neurological Society, of the Society of Medical Jurisprudence and State Medicine, of the Physicians' Mutual Aid Association; Physician to the New York Neurological Infirmary; Author of "Carotid Compression," "Brain Exhaustion, with some Preliminary Considerations on Cerebral Dynamics," "Local Anæsthesia in General Medicine and Surgery," etc. Second edition, revised and enlarged with additional illustrations. Royal 12mo: one hundred and thirty-five pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1885.

MEDICAL DIGEST.

RECENT METHODS OF TREATMENT OF THE ASPHYXIA OF NEW BORN CHILDREN.

Dr. Wm. L. Ried (*Glasgow Medical Journal*) considering the different methods of restoration which have been suggested, said:

It would be interesting to examine all the various plans which have been published, from Smellie's simple one of whipping the child well, and rubbing its mouth and nose with onions, to that of Woillez, who puts it up to the neck in the receiver of an air-pump, and alternately rarefies and condenses the contained air. But we must content ourselves with adverting to those which have been of late years held in most repute, excluding those which necessitate the employment of complicated apparatus.

Besides that of Dr. B. S. Schultze, Professor of Midwifery in Jena, which I mean more particularly to describe, there are eight methods before the obstetric public, but at present I can only indicate the principles of these.

(1) Marshall Hall: The patient is turned face downwards so as to press on the chest and cause expiration, then turned on the side so as to free the chest from pressure, and produce inspiration by means of the elasticity of its walls.

(2) Howard: The arms are extended, the wrists being brought together over the head and the chest thus expanded. The lower ribs are then alternately pressed on and relieved from pressure, so as to cause expiration and inspiration.

(3) Sylvester: The arms are raised upwards and forwards for a few seconds, and then pressed firmly down against the sides of the chest. By means of their muscular attachments the ribs are raised and air is sucked in, which is expelled when the arms are brought down again.

(4) Pacini: The feet are fixed, and the operator standing with the head against his own abdomen, seizes the arms at the axillæ and pulls the shoulders upwards and forwards, then allowing them to return to their former position.

(5) Bain: The shoulders are raised by lifting the body a foot off the table by seizing its hands. They are then allowed to fall back again, thus causing alternate expansion and contraction of the thoracic cavity.

(6) Schucking: Like Sylvester's, except that he carries the arms outwards as well as upwards.

(7) Schuller: The operator puts his fingers under the edges of the ribs, and pulls them up, afterwards depressing them.

(8) Schroeder: The body is supported by one hand placed under its back, allowing the head, shoulders, arms, and pelvis

to fall backwards with the view of producing inspiration, expiration being caused by sharply bending the body forwards so as to compress the chest and abdomen.

Lastly, Schultze's method: The child is to be suspended a few inches from the floor by the two index fingers placed in the axillæ from behind, the thumbs lying loosely over the front of the thorax, and the other fingers spread also loosely over the thorax behind, the head being supported against the edges of the ulnar bones. Without delay in this position, the child is swung sharply upwards, until the operator's arms are extended horizontally, then the upward movement is continued more gently so as to bring the legs slowly past the perpendicular and allow them to sink quietly against the front of the child's body. The weight of the latter is now supported by the thumbs in front of the thorax, and the chest pressed on all round by the fingers, and its arms laid against its sides. This compression through the diaphragm below, and the fingers all round, causes aspirated fluids to flow freely from the mouth and nose. After being retained in this position a few seconds, the body is swung smartly down again into its former position, taking care that now there is no compression of the chest, either before or behind, but simply a suspension of the child on the index fingers. During this movement the contents of the abdomen, partly by gravity, and partly by centrifugal force, fly away from the diaphragm, and dragging it down, enlarge the chest from below. At the same time the arms are separated from the sides, and by their muscular attachments drag the ribs upwards, and in this way air is sharply drawn into the lungs. These movements are continued every four or five seconds, unless when a considerable quantity of fluid continues to come from the mouth and nose, when the movement of expiration is on that account prolonged.

A few years ago Dr. F. H. Champneys, Assistant Obstetric Physician to Saint George's Hospital, London, undertook a series of experiments on the fresh bodies of newly-born children, with the view of finding out simply which method took most air into the chest. The methods tested were the nine I have already mentioned. The conclusions, amongst others to which Dr. Champneys came, are these:

"Since the position of equilibrium of a still-born child's chest is one of absolute expiration, airlessness, or collapse, no method which depends on elastic recoil of the chest walls will introduce air into its lungs. The methods of Marshall Hall and Howard are useless as means of directly ventilating the lungs of still-born children." "Sylvester's method and its modifications by Pacini and Bain introduce more air into the lungs than any other method." "Schucking's method is no improvement on Sylvester's." "Schuller's method is useless, and not free from risk." "Schroeder's method is useless."

"Schultze's plan, although its power of ventilation is less than that of Sylvester and its modifications, yet acts efficiently." "The violence of the action of the method of Schultze is not in its favor."

Before concluding this paper with a description of how Schultze goes about the application of his method in actual practice, let me briefly notice one or two objections which have been taken to it. Barnes says: "We need only mention Schultze's method of swinging and tossing the child. It has not been shown to possess any advantage to compensate for the violence which characterizes it." On the same page he adds, "We have tried all these methods excepting Schultze's." It will be long before any method can be shown to possess any advantage, if people condemn it before giving it a trial. Evidently Barnes is founding on the objection which Champney's experiments led him to make, and which we shall now consider. The statement of the latter is that "the violence of the action of the method of Schultze is not in its favor." If it were true that a fair amount of air could be taken into the chest only by such violent movements as resulted in grave damage, then the objection would be a reasonable one. But the objection is that the expansion of the chest walls was greater than the lungs were capable of following, and that if an important bronchus were occluded by a plug of mucus a rapid and powerful blast of in-going air would cause over-distension of the rest of the lung tissue and permanent mischief. It seems to me that this, if a real objection, would hold true of all other methods sufficiently powerful to do much good, and that the difficulty could not be met by swinging oftener and more gently. But the best answer is Schultze's own statement that he has seen children for the first time several days after birth, detected the presence of small atelectasies by percussion, and in the same manner proved that they were removed by the practice of his method.

Hofmann swung energetically thirty times the bodies of four dead children, and finding no air in the lungs, condemned the method as useless. Now, the swinging process may be energetic without being at all thorough, and Schultze pointed out in his original monograph, that the method, when not preceded by the use of the catheter passed into the trachea, was not so well suited for premature children. The softness of the chest walls and tracheal rings—allowing of their collapse when the descent of the diaphragm lowers the air pressure in the chest—effectually prevents the access of the external air. Hofmann's bodies were not only those of premature children but also had been removed from mothers already dead, so that even according to Schultze's own showing, the experiment ought not to have been expected to succeed.

Given the birth of an apparently dead born child, how ought we to proceed with its treatment? Personally, I believe in hanging it up by the heels with one hand, and clearing out its mouth and throat with the forefinger of the other. If this, followed by sharp whipping of the buttocks with the loosely hanging fingers, does not excite inspiration, I proceed at once with Schultze's method. The following is his own plan. If the heart is beating strongly, and the child only in the livid state of asphyxia, the cord is not cut, but the mouth cleared out, and cold water squirted on the pit of the stomach and nape of the neck. If the heart's action is weak to begin with, or becomes weak, the cord is divided, allowing three or four teaspoonfuls of the blood to escape, and the child dipped suddenly up to the neck in cold water. This failing, or when the child is born in the pale stage of asphyxia, after dividing the cord, clearing the throat, and pulling forward the tongue, swinging is at once had recourse to. The expiration position being gained, fluid pours out of the air passages by the mouth and nose, and as soon as it ceases, the inspiration position is assumed, when oftentimes the air is heard whistling through the glottis. These movements are to be executed eight to ten times, occupying, in all, about a minute. Aside from the ventilation of the lungs, and the removal of fluids from the air passages, the alternate raising and lowering of the pressure in the thorax acts mechanically in promoting the action of the heart, and the circulation of the blood. In this way oxygen is sooner carried to the medulla, restoring its power of setting up breathing, and this may be proved by noticing that the skin becomes redder even before spontaneous breathing has occurred. Often a little whimpering sound tells that weak efforts at inspiration are being made, and the swinging must then be timed, so that the artificial shall coincide with the natural attempts at breathing. After eight or ten swings the child is put into a warm bath (95° to 100° Farhenheit) to do away with the evil effects of rapid cooling, and to observe the result of the treatment. If there is no movement, it is swung again for another minute. If there is slight regular movement, the medulla is roused by dipping to the neck in ice-cold water. If the asphyxia recur, swinging is resumed, although this is always a bad sign, showing that there is an effusion of blood on the brain, or malformation of the respiratory or circulatory organs. The artificial means must not be stopped until the heart's action is completely restored, and the child cries loudly. In the case of a premature child with weak chest walls, or where after swinging a few times, no air is heard to enter, it is wise practice to pass a catheter into the trachea, blow in a little air to distend the air passages, and immediately resume the swinging.

In the employment of this method, the following points must be attended to, and I again call your attention to them, because, as Schultze himself says, and as six years' personal, and somewhat extensive experience of it has taught me, the success of it depends entirely on the thoroughness of its performance. (1) The first movement must be that of expiration, else the contained fluids will be sucked still deeper into the air passages. (2) The downward movement must be a fairly sharp swing, else the effect on the diaphragm will be largely lost. (3) If no air is heard entering, either the swing has not been powerful enough, or the thumb and fingers have not left the thorax free or the glottis is closed. In the latter case the catheter must be used immediately and the swinging resumed.

The three indications to be met are: Ventilation of the lung, acceleration of the circulation, and removal of inspired fluids. Ventilation of the lung alone, as by blowing in air, does little good, because, where the circulation is poor, oxygen is not carried to the nerve-centres. Acceleration of the circulation alone, as by warm bath, is not very effectual, because where there is no entrance of air it can only do harm by increasing the central congestion. And so with the simple removal of fluids, as by inspiration through the catheter, for the mechanical irritation of its introduction may set up an attempt at inspiration, which sucks the remaining fluid deeper into the air passages. The advantage of the method we are now considering is that time is not lost in trying to meet these indications one after the other; they are all being attended to at once. Some seven years ago I had the advantage of hearing this method explained by Professor Schultze in the Lying-in Hospital at Jena, and since that time have practiced it with certainly better results than I formerly obtained by Sylvester's plan.—*Weekly Medical Review.*

THE FINGER-NAILS IN DISEASE.

Dr. Morris Longstreet said in a clinical lecture at the Pennsylvania Hospital:

The subject of the finger-nails in disease, is a very interesting one, and will prove of service in many instances. In all morbid actions that interfere with nutrition, the finger-nails share, and the marks of such irregularities are left for some time on the nails. A mere pustule on the finger will more or less check the growth of the nail, and if this pustule be severe enough to cause a febrile condition, all the nails will be affected. If a man break his arm, the swelling of the parts will so interfere with nutrition as to affect the nails, and we can detect whether one has been really sick or deceiving us, for these marks will last as long as nine months, or until the whole nail has grown out. Of course there are no specific indications of particular diseases, but the indications of some trouble that has affected nutrition will be found. If the patient has had typhoid fever, pneumonia, pleurisy or acute rheumatism, the evidence will be found in the nail. Again, a man may work in a dye-shop, or some similar place that will stain his nails; if he tells you that he has been sick and unable to work for some time, if the whole of his nails are stained, you will know that he is deceiving you, for if he has been away from work for some time, that portion of his nails which has since grown will have the natural color, while the extremities will be stained. You will often come in contact with persons from whom you can get no history; maybe they have been found unconscious, and you can tell whether they have been sick for some time, or whether the attack is sudden, from the nails. Washing the hands and abrasion from ordinary use will separate the skin from the base of the nail, while if for some time the hands have not been washed or used this will be unbroken. Here we have one who is convalescent from typhoid fever; during the disease his nails did not grow; now they are growing, and we know that he is convalescent. The change referred to consists in a depression, extending one-third of the way through the nail, commencing at the matrix and advancing as the nail grows until it is finally discharged from the tip; when it reaches the tip the end of the nail is liable to be very brittle and break. This phenomenon is on the same principle as with the hair, which, when it commences to grow from its socket, in convalescence, is brittle from innutrition and breaks. In such diseases as rheumatism, where there is a sudden onset, a sudden rise in temperature, which is maintained, this effect is more marked, giving us a very abrupt depression, while in diseases of slower inception, as typhoid fever, it is more gradual, the nail gradually sloping on either side toward the depression. When the nail is growing very slowly during the disease the skin about the matrix adheres to it and is dragged forward, but when convalescence is established, and a more rapid growth commences, the nail shoots forward and tears away from the skin. If, as is sometimes the case, you cannot see this depression you can feel it. Sometimes there is no depression, but a more or less marked white line extends across the nail. If we have two attacks of fever, the one following rapidly on the other, as in relapse from typhoid, there will be two lines, which may be pinkish near the root, but become white as they grow out. During an epidemic of relapsing fever in this house, in 1869 and 1870, I had the disease myself and I first noticed these white lines in my own person and showed them to my medical friends, none of whom could offer an explanation. I soon noted the same peculiarity in typhoid, and looking the matter up, I found that some old French physicians had recorded cases of malignant fever in which the nails broke off, and in some cases came off entire. I think we do not have such types of disease to-day, for we certainly do not have the nails falling off. Vogel also speaks of this peculiarity of the nails, but falls into the error of supposing it an elevation instead of a depression. I have taken off the end of the finger in patients who have died, and made sections, when I was enabled to see a marked checking of the growth of the nail cells. These observations are important from a medico-legal point of view, and it is well to remember that the marks will last the longest on the nail of the great toe.—*Medical and Surgical Reporter.*

AMENORRHŒA.

Dr. Skene, gynæcologist to the Post Graduate School of New York, writes as follows on amenorrhœa in the *Medical News:* In organic diseases, especially those of the liver, heart, lungs, or kidneys, in the advanced stages, we may look for derangements of menstruation. Amenorrhœa is naturally a consequence of hepatic or heart affections, but in renal disease the pathology is not as easy of explanation, as it is perhaps less mechanical than the former. I presume in amenorrhœa occurring from renal disease, that it is due more to malnutrition, tissue deterioration, and anæmia. The point, however, to which I specially call attention is the necessity for us to look well to the general organization in obscure cases, and seek there the causes of amenorrhœa, rather than in the pelvic organs themselves.

I would next call your attention to the management of amenorrhœa in chlorotic patients. This condition, known as chlorosis, presents that peculiar form of organization in which we have a partial arrest of the development of the circulatory apparatus and sexual system.

The consequence arising from this insufficient development, is that amenorrhœa is the rule, as is also anæmia. In chlorosis especially, the blood-making organs are sluggish and defective, the heart action is feeble and easily gives out; they become tired easily on the least exertion. Such individuals cannot afford to menstruate, although they may do so under ordinary circumstances. But the moment you put a tax upon the system by which their vitality is used up in other channels, they become very anæmic and amenorrhœa follows.

You will also find that these patients do not respond well to restoratives and tonics, as will any well developed organization that is simply suffering from anæmia for the time being, because of this peculiarity of organization which I have just described. We give them iron and good nourishing diet, and they improve so slowly and fall back so often that you will find the alterative tonics effect by far the most satisfactory results. You can, of course, never change the organization, or make a well-developed, ruddy, vigorous woman of such a patient. In these cases you will find iodine, in the form of iodide of iron, answers well; this, however, is better in the strumous diathesis. In these cases of chlorosis we find that mercury in small doses is one of the best possible tonics. I know that if you give from one-thirtieth to one-fiftieth of a grain of the bichloride to a chlorotic patient three or four times daily, she will improve under the treatment, especially if you add the chloride of iron.

We must also remember that in the chlorotic girl the nervous system is below par, which would indicate the administration of chloride of arsenic. Such patients are likely to be dyspeptic, indicating a lack of gastric juice or its properties; hence, we administer hydrochloric acid. These remedies are contained in the mixture called "the four chlorides," namely, chloride of iron, chloride of arsenic, bichloride of mercury, and hydrochloric acid. Under this treatment it is surprising how these pale, greenish-yellow looking girls will improve; but you must continue it for some time in order to obtain the best results.

Some may ask, "Are you not afraid to give one-fortieth of a grain of the bichloride of mercury for a long time?" I have given it for two months regularly, and then stopped for one or two weeks, and then again continued it for one month longer, without any bad effects whatever ensuing. I have also known it to be given for a longer period than that with most marked beneficial results.

The rule is that amenorrhœa appears in the advanced stage of phthisis pulmonalis; when patients are in the third stage of the disease the menses become scanty, and finally cease altogether. But there are exceptions, and this case now before you well illustrates such an one. Where amenorrhœa occurs in the first stage of phthisis, it seems to come simultaneously with the lung trouble. In this case it is evidently conservative; a patient with marked degeneration of the lung suffers from impairment of the whole nutritive system; she cannot afford to menstruate.

The cause here is organic disease of the respitatory organs, and until that is removed we can do nothing in the way of treatment for her amenorrhœa. I insist upon this, and cannot impress it upon you too strongly, as upon this subject the laity, you will find, will have a great deal to say. Again and again have I seen them insist that the amenorrhœa was the cause of the pulmonary difficulty; they would insist upon giving the patient hot foot-baths, hot drinks of all kinds, with decoctions of herb teas innumerable, in order, as they said, to establish menstruation.

BILE CAPILLARIES.

Miura has discovered a modification of the gold method by which the bile capillaries can be stained, giving a simpler means for their study than the method of artificial injection usually employed. Pieces of liver kept in Müller's liquid for two to five days are washed in water for several hours, and then transferred to a fifteen per cent. solution of glucose for two to three hours. They are then placed in a 0.1 to 0.2 per cent. solution of the double chloride of gold and sodium for two or three days, and again placed in the glucose solution and allowed to reduce for two or three days. Sections are cut by means of a freezing microtome.

Miura has endeavored to settle two questions by this method. (1) Do the Kupffer vacuoles really exist in the liver cells as the beginning of the bile capillaries? His method gives no indication at all of these vacuoles, and he infers that, as usually found, they are artificial products caused by the pressure used in injection. (2) Have the bile capillaries walls? When their sections were traced out he quite frequently found places in which the broken ends of the capillaries projected beyond the cells, or where they formed a bridge passing between two cells at a point where they had been separated by the tracing needle. He concludes from these appearances that the capillaries have walls of their own.—*American Naturalist.*

CREASOTE WATER AS A LOCAL ANÆSTHETIC.

Dr. E. R. Squibbs, in the *Ephemeris* for March, 1885, says:

The officinal aqua creasoti, or creasote water, is so important as a preparation for one special use that it is well to notice it in order to emphasize that special use. It is a simple one per cent. solution of wood creasote in water, and, like similar solutions of carbolic acid and of cresol, it is a most effective local anæsthetic, and topical dressing to burns and scalds. It is no better than the solutions of carbolic acid, or of coal-tar creasote, for this purpose, but it is quite as good, so that whichever is most accessible or most convenient may be used. This creasote water, as made by the above formula,—or diluted with an equal volume of water, or with more water for delicate surfaces in women and children, and applied by means of a single thickness of thin muslin, or worn-out cotton or linen, such as handkerchief stuff, and the application renewed from time to time, as the return of pain requires it,—will relieve the pain of burns and scalds in five to ten minutes, and will maintain the relief as long as the applications are properly renewed, or until the painful stage is over.

It is also very effective as a local anæsthtic for general use in all painful conditions which affect the surface only, such as the pain of erysipelas. The benumbing effect of phenols upon the skin is very promptly reached, and can be carried to almost any degree that is desirable, by simple management of the strength of the solutions and the mode of applications. They are true anæsthetics to the skin, while the much lauded cocaine is not.

This statement has been published so often during the past twenty years, and the treatment has been so effective in so many hands, that it is wonderful to notice how the common practice is still to use the old and comparatively useless hot dressings, such as carron oil, white lead ground in oil, flour, liniments, etc., or the newer application of solution of bicarbonate of sodium.

THERAPEUTIC PROGRESS.

Salicylate of Soda and Benzoate of Soda have a destructive action upon the red corpuscles of the blood, and are thus contra-indicated in the treatment of spanæmia, chlorosis, leucocythæmia, etc.

Atropia in Acute Coryza.—Dr. Gray reports having treated a number of cases of acute coryza with atropia in doses of one-hundred-and-twentieth of a grain, and with most happy effect, in relieving the headache, reducing the heat and swelling, and diminishing the discharge.

Cocaine in Whooping-Cough.—M. le Dr. Labric treats whooping-cough by painting the isthmus of the fauces and pharynx, etc., with a five per cent. solution of chlorohydrate of cocaine. The application should be made two to four times daily according to the severity of the paroxysms.

Oleate of Cocaine.—Dr. Samuel Logan states that the suffering due to painful defecation, whether caused by hæmorrhoids, fissure of the sphincter ani, or irritability of the rectum, can be immediately relieved by the application of a few drops of a solution of the oleate of cocaine to the affected part.

Pruritis of Pregnancy.—A correspondent writes that a single dose of one-third of a grain of pilocarpine by the mouth, served to bring on profuse sweating and salivation, with complete relief of intolerable and persistent itching which had lasted throughout pregnancy and recurred after delivery.

Ointment for Phlegmasia.—

℞. Pure lard	30 grains.
Extracts of opium, belladonna, hyoscyamus, and conium, āā	3 grains.

Mix. Rub over the inflamed veins.

A New Caustic.—Dr. Arthur Mathewson reports a case of cure of epithelioma of the eyelid by the local application of benzole and calomel. The advantages claimed for this method of treatment over that by the use of most other caustics, are that the pain is slight and brief, and that while these agents seem to exert a solvent action on the imperfectly organized morbid tissues the adjacent sound tissues are able to resist any tendency to dangerous sloughing.

Local Anæsthesia.—Dr. Govan stated at the New York State Medical Association, that he had used analine oil for the purpose of producing local anæsthesia when laying open felons and performing other minor operations. There was absolutely no pain, even in cutting down to the bone, when the finger had first been dipped for a short time in oil.

Catarrh of the Bladder.—G. A. Noble speaks highly of the effect produced in obstinate cases of catarrh of the bladder by the following combination.

℞. Fl. ex. buchu,
Fl. ex. uvæ ursi, āā........................ ℥ss.
Ex. gelseminum.............................. ʒj.
M. Sig. Ten to thirty drops five times a day.

Potassium Bromide in Ovarian Menorrhagia.—Dr. Alfred Meadows, at the British Gynæcological Society, referring to the powerful influence exercised by this agent upon the ovaries, stated that no drug equalled it in controlling ovarian menorrhagia; it not only limits the flow, but also exercises a distinct and controlling influence upon ovulation itself, decreasing its frequency.

Cannabis Indica as a Narcotic.—H. Lewis Jones values it highly to produce sleep, especially where sleeplessness is accompanied by delirium. In the delirium of typhoid fever and erysipelas and in delirium tremens it is most valuable, a few doses being sufficient to give refreshing sleep. Two or three grains in pill form, he gives every four to six hours. Frequently the first dose is sufficient. In only one case, that of a young woman, has there been any complaint of hallucinations.

Sedative Cough Mixture.—Dr. H. C. Wood recommends the following as the most efficient cough mixture he has ever used:

℞. Citrate of potassium...................... ℥j.
Succi limonis................................ ℥ij.
Syrup ipecac................................. ℥ss.
Simple syrup, q. s. ad....................... ℥vj.
M. Sig. A teaspoonful from four to six times a day.

When there is much cough or irritability of the bowels, he adds a sufficient quantity of paregoric.

Blistering by Cantharides.—Dr. Squibb calls attention to the necessity of carefully cleansing of the surface to which a cantharidal blister is to be applied, in order to gain any satisfactory result from the application. Soap and water should be first used and then dilute acetic acid or vinegar. The active principles of cantharides are insoluble in water, and therefore a very thin film of moisture will prevent efficient contact of the blistering preparation with the cuticle. The healthy and unhealthy secretions of the skin are apt to so cover it as to prevent this contact, and the pharmacist is not infrequently condemned for supplying an unsatisfactory article, when the only fault is in the mode of using it.

IODIZED PHENOL IN THE TREATMENT OF WHOOPING-COUGH.—Roth (*Memorabilien*) announces his continued satisfaction with carbolic acid as a remedy for whooping-cough, after fifteen years' experience with it. The formula is as follows:

℞.	Carbolic acid,	
	Alcohol, āā	7½ grains.
	Tincture of iodine	5 drops.
	Peppermint water	750 grains.
	Tincture of belladonna	15 grains.
	Syrup of diacodium	150 grains.

A teaspoonful is to be given every two hours, the administration being continued until the paroxysms entirely disappear.

STRYCHNIA IN ACUTE ALCOHOLISM.—Dr. Lardier has long employed strychnia in the treatment of delirium tremens, and regards it as the best remedy which we possess for this condition, as, in fact, a veritable specific. He insists upon the necessity of giving the drug in large doses. In one case he had given granules containing each one-thirteenth of a grain every two hours for several days without any appreciable result. He then increased the number of granules and also administered the drug hypodermically, giving in all one and two-thirds grains in the space of twenty-three hours. The result was a most happy one. The patient soon fell into a refreshing sleep, never exhibiting the slightest symptom of strychnia-poisoning.

SULPHATE OF IRON IN THE GASTRIC CATARRH OF INFANTS.—When absorbents and tonics fail to correct the acidity, Roth (*Pest. med. chir. Presse*) resorts to sulphate of iron, which acts favorably in a variety of ways. In the first place, it is a disinfectant; under its use, the evacuations are changed in color and lose their offensive odor. Being an astringent, it contracts the turgid mucous membrane and coagulates albuminous matters. In order that these effects may be decided, its use should be continued for several days. The author employs the following formula:

℞.	Sulphate of iron	1½ grains.
	Mucilage of acacia,	
	Syrup, āā	5 drachms.

A teaspoonful to be given every two hours.

PILOCARPINE IN SUDDEN LOSS OF HEARING.—Dr. Thomas Barr reports material improvement in two cases of sudden loss of hearing from the hypodermic use of pilocarpine. The trouble was in the nervous structure of the ear. He has used it in labyrinthine trouble coming on gradually but with no effect. Politzer, who was the first to propose this remedy, used it chiefly in cases of nervous disease of recent and sudden occurrence, and especially in those of syphilitic origin. As to the explanation of the therapeutic action of pilocarpine, we can only assume that it has an especial power of stimulating the absorbents in contact with the effused products before these have become organized. It seems to have a more decided action upon the intracranial absorbents; and the vascular and lymphatic supply of the labyrinth is in reality the same as that of the interior of the cranium. If this view of its action be correct, it would be reasonable to employ this method of treatment more generally in cases of cerebral apoplexy.

* * *

FORMULÆ FOR THE USE OF IODOFORM.—An injection for chronic catarrh of the bladder, urethritis, etc.

℞.	Iodoform	1 part.
	Glycerin	5 parts.
	Distilled water	100 parts.

For hypodermic injections in syphilis.

℞.	Iodoform	1 part.
	Sulphuric ether, Olive oil, āā	5 parts.

For internal use in convulsions.

℞.	Iodoform	18 grains.
	Iodide of potassium	1 drachm.
	Red wine	2½ drachms.

From three to fifteen drops are to be given, in a glass of wine, three times a day.

Pills for bronchitis and emphysema.

℞.	Iodoform	1½ grains.
	Lycopodium	6 grains.
	Extract of phellandrium	15 grains.

Divided into ten pills, from three to five to be taken daily.

* * *

BISULPHIDE OF CARBON IN DIARRHŒA.—According to M. Dujardin-Beaumetz, bisulphide of carbon deserves to have a wider therapeutic application than it now possesses. The poisonous intoxicant qualities which have led to serious accidents during its manufacture, appear from recent experiments by this observer to be minimised by prolonging the process. He has also been led by the evidence which these afford, to regard this substance when well diluted with water as a valuable antiseptic agent in infectious forms of diarrhœa, particularly in that of typhoid fever. His formula is the following:

℞.	Bisulphide of carbon	25 grammes.
	Essence of mint	25 drops.
	Water	500 grammes.

The mixture is placed in a vessel of about seven hundred cubic centimeters measurement, shaken, and allowed to stand till all deposit has been thrown down. When any of the fluid is drawn off, care must be taken to add water in like quantity to the remainder. Four to ten tablespoonfuls of this solution should be taken throughout the day. Milk is a suitable medium for administration.

INCOMPATIBILITY OF CHLORAL HYDRATE WITH POTASSIUM BROMIDE AND ALCOHOL.—Professor George F. H. Markoe, in experimenting with solutions of chloral hydrate, finds this drug incompatible with bromide of potassium and alcohol. He says: Experiments prove that the alcohol is the cause of the trouble, and the writer thinks that the chloral hydrate is changed into the less soluble chloral alcoholate. The writer found that the addition of potassium bromide, sodium chloride, and magnesium sulphate to strong solutions of chloral hydrate, together with the presence of alcohol, determined a separation of the liquids into two layers. Ammonia chloride, ammonium bromide, potassium nitrate, and calcium bromide did not disturb the same chloral solutions. The practical lesson to be learned from this incompatible prescription is that alcoholic preparations should not be prescribed with chloral hydrate, especially not in connection with the bromides of potassium and sodium, because if concentrated solutions are used the chloral will separate as alcoholate, float on the surface, and a great risk will be incurred of giving a large overdose, the patient having received no caution with regard to the necessity of shaking the contents of the bottle before taking a dose.

ERUPTIONS DUE TO THE USE OF CERTAIN MEDICINES.—The following is a list of eruptive ailments that at times are caused by the administration of remedials:

Quinine.—Erythema scarlatina, papular erythema (Kohner); hæmorrhages and purpura, pemphigus, œdema and prurigo. Cinchona, belladonna, stramonium and strychnine, have the same character as quinine.

Digitalis.—Erythema after long use (Traube).

Aconite.—Vesicular exanthemata.

Santonine.—Pemphigus, vesicles (Deschamps).

Opium and Morphine.—Erythema (Apolan), papular eruption with marked desquamation and itching.

Pilocarpine.—Increased perspiration.

Atropia.—Diminished perspiration.

Phosphorus.—Purpura.

Mercury—(internally) Erythema (Kalus, Laissi, Gamberini), eczema (Aley. Fournier, Gamberini).

Arsenic.—Erythema and papules (Imberts-Gcubayre), vesicles and pustules (Bazin, Raymondi, Gamberini).

Carbolic Acid—Erythema (Taurschi), pemphigus (Laissi).

Salicylic Acid.—Purpura (Freudenburg), vesicular angina, pemphigus.

Chloral.—Erythema slightly colored, itching, desquamation, purpura and patechia (Crichton and Brown); eczema (Kirn).

Copaiba, Cubebs, Turpentine.—Pemphigus, erythema, eczema (Renter).

Cod-Liver Oil.—Acne.

Iodide of Potassium.—Papules, vesicles (Bumstead, Gamberini); pustules, ecthyma, eczema (Landrieux); ecchymosis and purpura (Tilbury Fox).

Bromide of Potash.—Papules and pustules, deep tubercles with ecchymosis, pemphigus ulcers.

SPECIAL NOTICES.

J. T. Herndon, M. D., of Keysburg, Kentucky, takes much pleasure in bearing testimony to the remedial effects of Peacock's fucus marina. He is better pleased with its action than anything he has ever used as an antidote to malarial poisoning.

James L. Gunn, M. D., of Danville, Virginia, has used one of the Elliott patent saddle bags every day for the past five years. They have given him perfect satisfaction, and are now as good as new. They have required nothing but medicine since he purchased them.

A. A. Mellier's reduced price list of surgical instruments and appliances just issued, contains two hundred and seventy-five pages of illustrations of surgical instruments and appliances, many of which are entirely new, with prices at a reduction of from twenty to forty per cent. from those usually given. Will be mailed, on application, to your address. A. A. Mellier, 709 and 711 Washington avenue, Saint Louis.

Dr. Wm. Alex. Greene, of Macon, Georgia, has tested the virtues and efficiency of "Colden's liquid beef tonic" in private practice, in cases of general debility, weakness, depression, dyspepsia, loss of appetite and nervous afflictions when medicine had proved more than useless. It is also an excellent remedy in chronic alcoholism, when the stomach is always irritable, and food required to nourish and invigorate the drooping strength and nervous depression, also appeasing the thirst for more alcohol.

J. L. Grant, M. D., of Carrollton, Missouri, states: Wishing to be of benefit to any poor sufferer with asthma, I will say that my wife is subject to asthma and has been for years. She had a severe headache during one of her spells, and I gave her a dose of tongaline, which relieved her of the asthma. I have tried tongaline with her several times since when she was suffering and in every instance the asthma was checked. I recommended it to Mr. Jos. Black, a young gentlemen of our town, and he says it relieved him every time taken. I know you do not recommend it for asthma but I can safely do so.

T. F. **Frazer**, M. D., of Commerce, Missouri, says: Have derived particularly gratifying results from tongaline in dysmenorrhœa. Have been prescribing it during past year, and can cheerfully testify to its great value in rheumatic and neuralgic troubles. Have derived particularly gratifying results from its use in dysmenorrhœa when not dependent on obstruction or serious organic disease. In the case of a lady of rheumatic diathesis and a chronic sufferer from dysmenorrhœa, who had been driven almost to the verge of insanity by her monthly suffering, its action has been most satisfactory. I first prescribed it for her about six months ago when suffering intensely. It relieved her promptly, and she now passes the once dreaded periods with but little discomfort. I could mention other instances of similar character, but this is the most remarkable one.

Cod Liver Oil With Hypophosphites.—As a nutrient means of checking and repairing bodily waste, and remedying disease of the throat, chest and lungs, Scott's emulsion has long held the foremost rank among preparations of cod liver oil. The time-honored firm of Scott & Bowne owe, in no small degree, their leading position in the trade, which they have held for the last twelve or fifteen years, to the superior character of this article. In it not only is the disagreeable flavor and nauseating effect of cod liver oil in its crude state overcome, so that it is pleasant and palatable, but it holds in combination the hyphosphites of lime and soda, a most important remedial agent and adjunct to the cod liver oil. The perfect chemical union of this valuable combination as prepared by this firm gives it an exalted position in pharmacy, and brings this hitherto valuable but almost useless article (on account of its repulsive taste and odor) into practical utility for supplying to the depleted system iodine, bromine and phosphorus in the most desirable and acceptable form. The certificates of some of the most eminent physicians and analysts in Europe and America, in both of which countries it is widely esteemed by the profession and the public, attest both its efficacy and its chemical purity. By its superior healing and strengthening powers it has grown and reached out till it has covered many countries of the globe, and can be found even in some of the remote corners of the earth.—*Townsend's Quarterly Epitome.*

THE
PHYSICIAN AND SURGEON
A MONTHLY MAGAZINE,
DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. APRIL, 1886. NUMBER IV.

ORIGINAL ARTICLES.

DIPHTHERIA TREATED AS AN INFLAMMATION.*

BY CHARLES J. LEWIS, M. D., CHICAGO ILLINOIS.

Bretonneau described diphtheria as an inflammation in 1826. This view of the disease prevailed until about 1855, when the fatality from the disease was so great in England, that the antiphlogistic treatment as then practiced was found ineffective. In this epidemic Dr. Heslop, but more particularly Professor Laycock, published in 1858 the opinion that diphtheria was of fungus origin. This theory gained very rapidly in popularity, for its requirements were simply that the pathogenous germs should lodge in the upper air-passages, cause the development of the diphtheritic patch, and send emissaries out from thence to poison the whole mass of blood. How this was accomplished was not then, nor has it to this day, been clearly set forth: nevertheless, it is believed by all who entertain the asthenic doctrine. Blood-poisoning from this source is difficult of demonstration and ever will remain so until it shall be proven that bacteria *can destroy healthy blood corpuscles.* The next and last statement of the blood-poisoning theory is, that bacteria by their decomposing or fermentative processes formed ptomaines or allied fetid alkaloids, which, when taken into the blood by absorption would cause sepsis.

I regard the disease process of diphtheria to be an inflammation as did Bretonneau, with this qualification, namely, that quite early in the attack the kidneys become involved, giving rise to those symptoms that have been referred without due consideration to blood-poisoning. The walls of the venules situated in the tissue-area of inflammation become altered whereby some of their contents pass from within out, the same as does the arterial blood pass from the capillaries. Thus the disease is at the outset very innocent, being only a simple local affection. We must bear in mind, however, that a disease is simple or circumscribed in character, only while it is recent. Especially is this so in diphtheria, for almost with the first manifestations of it in the faucial cavity, the walls of the tubuli uriniferi take on the same change, namely, an enlargement of their pores, so that the soluble albumen which has become disintegrated and is circulating through the system may pass out with the urine. This fibro-albuminoid waste is eliminated in all probability, in part, by the lungs as well. The importance of kidney complications as indicated by albumen in the urine, has hitherto, it seems to me, been misunderstood when they were ascribed to blood-poisoning. It has been my observation that every case that would have the disease rather severe, would have albuminous urine at about the third day of illness; and all cases that perished without exception, passed albumen in large quantity.

---

* Read before the Chicago Pathological Society, December 14, 1885.

We can now readily see that a special interest attaches to diphtheritic inflammation, because it kills mucous membranes in the throat or wherever located, and at the same time converts this dead tissue by the aid of the coagulable lymph which oozes out of the veins in the inflamed area into a false membrane. In the first steps of the disease-process, micro-organisms are not present, and therefore, take no part; but after there has passed out through the vein-walls such a large amount of disintegrated albuminoid plasma that the normal exfoliation of the mucous membrane is not adequate for its removal, nature in a very wise and beneficent manner sends uncounted numbers of micrococci into this dead and peculiarly formed mesh-work called false membrane for the purpose of macerating, breaking-up and liquefying it to the end of effecting its complete removal. When the venous-stasis is well defined, the benign operations of bacteria are observable in their liquefying the dead cells, effete and all possible waste which is barred from entering the veins by reason of their fullness, that it may thus be more fully brought into a state suitable for elimination, though it be by the destructive process of ulceration. I will venture the suggestion that these bacteria after having accomplished their purposes upon the waste which lies around the outside of the vein-wall, *penetrate the vein-wall* for the express purpose of effecting such a solution of the particles of waste as may be present in the blood-stasis, to the end of having them removed though it be by the unnatural process of osmosis. The fermentation set up by these germs in this blood-stasis area, causes a greater distension of the vein-walls and, therefore, an enlargement of their pores, through which the waste of the venous blood may escape more readily.

We have in diphtheria a local lesion, a storing in the blood of effete material, a congestion or inflammation of the kidneys, with excessive weakness. The weakness has generally been regarded as an expression of asthenia or depression. But this cannot be so, for there has been no hæmorrhage, no exhausting diarrhœa, sweating, loss of sleep, or of any serious loss to the organism. But that we have locked up in the system the impurities of the blood is palpable, and we have present as a consequence of this a well marked oppression. By inference then, it would seem that the strength of these patients is not actually diminished, but that it sleeps, is dormant, lethargic, in that the eliminating organs are not removing the body-waste sufficiently to hold the vital dynamics from falling below a normal standard. It is to be assumed that we have in the venous blood of diphtheritic patients an abnormal amount of fibrin and dead albumen. Owing to this fact, the exudate is capable of forming false membranes. This fibro-albuminoid waste seeks elimination by the kidneys and lungs.

To treat a patient having diphtheria in an intelligent manner, when the disease is regarded as above set forth, it is necessary to have a clear view of the fact that the disease-process kills albuminoids in excess, while at the same time it diminishes the functional activities of the emunctories. The indications for treatment are, then, to restore to health the tissues bearing the local manifestations of the disease, to intervene inflammation of the kidneys and to hinder premature death of soluble albumen. To the end that therapeutics in diphtheria would have under this comprehensive view a steady growth in simplicity and precision, it is imperative that the practitioner think for himself, weigh the results of his experience with the drugs he has been using, examine again and again the old remedies and any new application of them and continue a vigorous search for new ones until he found those that would be at all times efficacious.

Having had a large experience with diphtheria at the bedside, and having deliberated much upon the causes that were responsible for so many fatal cases under the prevailing tonic-stimulant treatment, I have deemed it proper to supplement the meritorious work of other observers by presenting a few remedial agents that have been found efficient in controlling the disease. Let us not forgot that medicines, nursing or proper hygiene are but measures or conditions employed to lift the oppression which is produced by the disease-process, from the vital forces resident in the protoplasm or cell-contents. The labor to this end has been steadfast and unshrinking. And the mode of treatment is said by those who have adopted it, to merit the highest encomiums.

A very popular writer has said that a certain number of cases will die under any treatment. He thus assumes to be familiar—though in an unconscious way—with all systems of cure. For a physician, however, who is well cultured in medicine, and whose theories are broadened by the friction of upwards of a quarter of a century's experience, to despair of the medical profession ever being able to beat back the marauding forces of this disease, is not making of himself an example that is characteristic of the age which bears him. It seems to me that it would be more in accordance with the office of the physician, that he employ his mental powers in discovering the errors of pathology with the view of dropping all remedies that were unnecessary or harmful. I refer here more particularly to the efforts made by certain prominent physicians to imbue the profession at large with the advantages that are to be derived by following their opinions in regard to the administration of tonics and the use of solvents of the false membrane *in the fauces.* A prominent specialist has recently advocated the use of papaotine *one* part, water *four* parts, and glycerine *four* parts. He claims for this solution a good degree of success in softening and dissolving the membrane. It is just as irrational to expect that the removal in this manner of the inflammation-product which is constantly welling-up out of inflamed veins to be curative, as it is to hope for a cure of scurvy by applying to the livid blotches a wash of sugar of lead. The inefficiency and harmfulness of all local treatment which looks to the removal of the diphtheritic patch from without, is apparent when we consider that such therapeutic energy is expended upon the product of the disease, instead of upon the disease-process. The fault with tonics in pyrexias is that they aid in continuing the irritation and for obvious reasons hinder a free elimination of waste. I have seen in consultation several fatal cases where the sad result was largely due to the inflamed kidneys being aggravated and general elimination neglected, under the idea that the disease was an asthenia, and enforcing the supposed necessary, though injurious treatment with iron, quinine and full-feeding. This would be painfully clear in all cases having albuminuria setting in early. Instead of such patients being convalescent on the second or third day, or even holding their ground, they would be farther oppressed, their breath would be more offensive, the exudate thicker, its area extended; the albumen more abundant in the urine, the urine diminished in quantity and the interval of voiding lengthened. This would be so frequently observed in cases intimated, we feel justified in saying that the tonic-stimulant treatment of diphtheritic patients is in a large measure injurious.

One writer has said that the antiseptic treatment of diphtheria has killed more persons than germs. He has also said that by enforcing a tonic treatment before the disease has passed its sthenic energy is sure to result in a positive injury. This writer has come the nearest to the elimination treatment that I have used for years, to any one that I am familiar with. Nevertheless, this same Dr. J. E. Winters has recently reported giving two drachms of the tincture of chloride of iron every hour for forty-eight hours to a lad eight years old, that is, nine ounces of absolute alcohol, *nearly three ounces of muriatic acid* and upwards of a thousand grains of iron. The alcohol and acid are diffusible, but nearly all of the iron can be recovered in the form of gallate from the alvine dejections. If you ever conclude to give large doses of tincture of chloride of iron, remember that it is important that there should be in the patient's stomach at the time each dose was given, a large amount of albuminous food to prevent the hydrochloric acid from injuring the mucous membrane. In all probability there was an imposition practiced upon the doctor by the boy said to have taken twelve ounces of the tincture of iron in forty-eight hours, for it does not seem possible that a lad eight years old could have swallowed thirty minims of muriatic acid for forty-eight hours consecutively and survive.

Patients having a subnormal number of red corpuscles in their blood when overtaken with diphtheria, will be benefited by having iron added in small doses to their treatment. But because such cases—which are rare—are found to do better when iron is administered, to rush to the conclusion that all cases will be cured of diphtheria by it is a ridiculous fallacy. Neither Heslop's iron, nor any other being in any sense of the word a specific, the unsparing and injudicious administration of it without due consideration of the indications furnished by the individual case, is only a blind empiricism. Hence, this enthusiasm needs a little calm reflection to lessen its zeal. In diphtheria life in endangered by the great oppression incident to the clogging of the blood-vessels with waste while the vigor of the excreting organs is impaired. Owing to this fact, I most seriously deprecate the employment of agents which will add to the already existing oppression, especially when there is a likelihood of thereby aiding in establishing in the kidneys a diseased condition which is more dangerous than the original illness. But to bring before you the steps in convalescence under tonics, I will make use of the words of another: "If now, a reparative process is established, the vascular injection at the immediate edges of the diphtheritic membrane lessens, the patches thicken at their edges, and separate, usually in small portions. This process of repair is due to the effusion of serum, the exudation of mucus, the immigration of pus-corpuscles and the loosening of the pseudo-membrane by ulceration." This pus-forming and ulcerative process is nature's way of curing in spite of treatment, for it differs but little, if any, from convalescence without medication.

It is a common observation that all diphtheritic patients having the disease but moderately severe, commenced about the fourth day to parley about swallowing liquids. This antipathy to swallowing water has generally been attributed to the pain accompanying the act. But upon careful inquiry, it will be found to depend more upon the fact that the lungs and kidneys are not doing full duty, and as a consequence, the vascular system is full to repletion—a surfeit—rather than to the soreness of the throat. Alcohol has its warm advocates when given in large and frequently repeated doses. This agent dilates the capillaries—the disease-process dilates the capillaries also; wherein does it cure? Alcohol is a heat depressant and does not cure; but the water taken with it stimulates elimination.

A correct choice of remedies at the bedside brings success in treatment. This choice involves the appropriateness and efficiency of the drugs employed, together with the question of how to administer them. There can be no question about the abvisability of selecting drugs for overcoming an acute disease like diphtheria that will produce the therapeutic effect desired in a most certain, efficient and prompt manner. Yet I regard it as very unreasonable to expect an irritable child to take a dose at regular and short intervals of a bitter tasting and pungent compound for the cure of a disease characterized by soreness of all of the tissues of the mouth. Rest is just as important in medicine as it is in surgery. And the resistance to taking medicine which results in crying, is undoubtedly very bad hygiene.

It is my custom to give a child aged from six to eighteen months, three grains of sub-chloride of mercury, mixed with three grains of bicarbonate of soda. Follow this in three hours with an efficient cathartic. In a few minutes after the sub-chloride of mercury is given, a teaspoonful, repeating the same amount every hour until the bowels will move, of the following:

℞.	Tincture aconite root	gtt. iij.
	Tincture belladonna	gtt. vij.
	Water	℥j.
M.		

After the cathartic has acted upon the bowels, which is usually in from five to six hours, give from twelve to sixteen doses daily—no water taken after the dose—of the following:

℞.	Tincture aconite root	gtt. x.
	Tincture belladonna	gtt. xx.
	Tincture opium (deodorized)	gtt. xx.
	Chlorate of potassium	ʒj.
	Water	℥iv.
M.	Sig. Dose one teaspoonful.	

The patient is urged to take water freely—the temperature of the water should be about 50° Fahrenheit. The temperature of the room should be about 70° or 75° Fahrenheit. Keep the patient in bed. I am not in the habit of ordering my patient to take nourishment before all the active manifestations of the disease have abated. It is useless to give nutrition when the morbid products are not constantly carried out of the system. If the patient calls for food, however, give him that which is non-nitrogenous. The fats and carbo-hydrates throw no work upon the kidneys. When the glands at the angle of the jaws are swollen and painful, paint them every four hours with

℞. Tincture aconite root.
Tincture opium,
Tincture belladonna, āā.................. ʒj.
Compound soap liniment.............. ℥vj.
M.

Under this plan of treatment which is here given in the main, we may prognosticate recovery in faucial diphtheria in from four to six days in all cases adopting it before the appearance of albumen in the urine.

Jacobi says that chlorate of potash is valueless in diphtheria, but he regards it as useful in the cure of what he calls stomatitis and pharyngitis, which lies contiguous to the diphtheritic exudate. But Professor Seeligmüller, Dr. Hüllman, of Halle, Dr. Hachler, Dr. Julias Sauley, Dr. Eisenschitz and Dr. Grünberg, of Germany, all unite in attributing to chlorate of potash superior virtues in the treatment of diphtheria, Dr. Hüllman claiming it to be the best remedy proposed. In this country the standard remedies are a combination of tincture chloride of iron and chlorate of potash—both given in large doses. But singular enough, all the healing properties are ascribled to the iron, while in fact the iron is practically useless.

I am well aware that I am making a new application of very old and very well known remedies. All of these agents—severally—have something of a controlling action on the vessels supplying the mucous membrane of the upper air-passages, and by uniting this special feature of each to the other in one, we marshal a therapeutic force which constitutes a very powerful antiphlogistic treatment, and the fear of a bold administration of them will vanish as does that of the use of large doses of opium in peritonitis, of quinine in pneumonia, and of iodide of potash in syphilis. I know that patients having very foul breath, a dense friable false membrane and passing albumen in the urine, commenced immediately to improve upon the adoption of the course of medication which I have laid down. It is to be noted, however, that the dose might need to be modified in some cases.

To obtain an advance in the treatment of disease we must go beyond the therapeutics of the past. These were the ways of experiments, of guesses. And I am constrained to say, that from my observation of the action of iron and stimulants, that they are unnecessary, harmful, and in their action inconsistent with the nature of the disease. In this connection we may observe that diphtheria is claimed to be a sepsis. But in speaking of it, terms are used which are employed in describing inflammation. The same inconsistency is noted in relation to tonics and stimulants, for these are given to tone-up, to sustain, while the results expected therefrom are similar to those that would follow the administration of antiphlogistics. I call attention to these inconsistencies to the end of having them laid aside, just as did Professor Laycock, Heslop and others succeed in setting aside the errors of treatment in vogue in the fifties. That a change in the treatment of diphtheria for the better is loudly called for, will be conceded when we consider that during the year the deaths from it in the city of New York will be about one thousand and three hundred; and in Chicago with one-half the population the deaths will foot up about seven hundred. These cities are mentioned particularly but the disease is destroying the innocents throughout the land—and indeed, the world—at the same alarming rate. Hence, it plainly becomes the duty of the medical profession to obtain a knowledge of the nature of the disease to the end of founding thereon a successful mode of cure. If a physician is ever permitted to give positive utterance to his professional accomplishments, this would be the time to say, that when a diphtheritic patient is treated as suggested above, the remedies act kindly and with conspicous promptness upon the tissues invaded. Whilst it is true that the remedies will not remove the false membrane, they will nevertheless control the inflammation, and thereby prevent the formation of more or additional membrane and in this manner save the tissues from farther injury. The exudation ceases, and the healing process begins. The nearer to the commencement of the illness the treatment will be instituted the more striking will be the results: still, though the disease may have been progressing for a period of three or four days, and the inflammation-products clearly indicating that there was arterio-capillary stasis—starvation—as seen in the loosening of the false membrane by immigration of pus-corpuscles and ulceration, yet while the disease was locally in this stage and still going on, together with its being in a relatively advanced state in the kidneys, the rigid enforcement of the system proposed, would bring about a good recovery in nearly every instance. When no albumen was present in the urine at the commencement of treatment, none would appear. And as to the false membrane, it would have but little more inflammation-products added to it after the lapse of about twelve hours. The exudation from this on gradually diminished, and the membrane which was already formed commenced to wear away from its outer side as if by friction. This diminution would also be observed at the margins. Contrast these steps, with its disappearance under tonics. In this way the exudate diminishes in thickness and area, with the most recent exudate resting firmly on the mucous membrane—not loosening at its edges and coming away in small portions—*but wearing away from its outside until it would finally disappear altogether.* In this manner the last vestige of false membrane would be driven away without becoming decrotic, without the pressure of pus and without any visible injury having resulted from the inflammation. As the membrane disappears, the color of what Jacobi calls stomatitis and pharyngitis—which terms are or should of right be included in the term diphtheria—is gradually restored to its normal arterial tint. And moreover, instead of there being a catarrhal or ulcerated surface where the false membrane was situated, as is so uniformly the case under domestic or the tonic-stimulant treatment, the parts present a normal appearance as to color, flexibility and function. In addition to the restoration of the tissues first invaded without the intervention of a slough or an ulcer, the patient is spared from such extension of .the disease as is occasionally observed to result in temporary blindness, deafness, albuminuria or regional paralysis.

I have followed a calomel purge with aconite, opium, chlorate of potash and belladonna in upwards of a thousand cases, and the manifest good of their combined action was observable in bringing the advancing mahogany color and exudation to a pause in so uniform a manner, that at present, I see no objection to applying to this classified system the term—*new cure.*

The treatment of the descending variety—laryngeal diphtheria—as well as membranous croup, requires in addition to the above medicaments, the administration of remedies through the steam atomizer. I frequently use—

℞.	Muriate of ammonia	gr. lxxx.
	Tincture belladonna	gtt. xl.
	Water	℥ij.
M.		

Pour a teaspoonful of this solution into the atomizer's cup, and fill with warm water. When the atomization commences, place the mouth-piece in the patient's mouth, holding it there until one-half or the whole of the cup's contents is exhausted. This process should be repeated every thirty minutes, every hour, two or three hours according to the degree of obstruction to inspiration. The maceration of the false membrane in laryngeal diphtheria or in croup by this moist medicated heat, is a valuable aid to the belladonna, which by stimulating the lungs, enables them to continue their expiratory raspings of the exudate until it is wholly expelled. By administering medicines by steam atomization in addition to the treatment suggested above, the operation of tracheotomy or that of intubation of the larynx would be but rarely required.

To sum up:

(1) Diphtheria is a local inflammatory disease, becoming general, speedily after the kidneys are implicated.

(2) The lowered temperature, slow pulse, and the nearly total obliteration of the sense of thirst, that are so frequently observed in the course of diphtheria, are found to be associated with albuminuria.

(3) After the inflammation of the kidneys is fairly developed, the impurities of the venous blood—inflammation-products, disintegrated soluble albumen and the normal waste of the body—are retained in the system for an undue length of time. This diseased condition soon reveals itself in the profound oppression it superinduces.

(4) In laryngeal diphtheria, as well as croup, the tendency is toward plugging up the larynx with inflammation products.

(5) We do much to abort diphtheria by producing a profound impression upon the system at the outset of the disease with sub-chloride of mercury. To accomplish this more fully, and—

(6) To intervene the low temperature, slow pulse, disgust for liquids and inflammation of the kidneys, we rely upon aconite, opium, belladonna and chlorate of potash.

(7) These agents aid the eliminating organs to successfully remove from the venous blood the effete materials that are constantly accruing at such a uniform rate of progress as to keep all parts of the organism from fatal injury.

(8) In laryngeal diphtheria the tissues bearing the inflammation-products are aided in a very material manner in their efforts to remove the exudate, by adding to the antiphlogistic treatment of diphtheria, muriate of ammonia and belladonna by steam atomization.

(9) Diphtheria is curable.

783 Carroll Avenue.

CLINICAL LECTURES.

CIRRHOSIS HEPATIS.

BY PROFESSOR POTAIN, PARIS, FRANCE.
Medical Clinic at Necker Hospital.
REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY OUR PARIS CORRESPONDENT.

GENTLEMEN: Among the patients that have come in this last week you have noticed, no doubt, a man that has ascites. This trouble is already quite old as he was punctured for it some four months ago and some eighteen quarts of liquid were drawn off. He was somewhat improved by this operation but in no way cured, and at present the liquid has reproduced itself to the extent of at least seven or eight quarts.

What is the cause of this ascites? This is evidently the first question that presents itself to your minds, and I will try to make the answer clear to you. When we are in the presence of a liquid collection contained in the peritoneal cavity, and the patient has never had any œdema in any part of the body—which is the case here—we should at once think of three things: A chronic peritonitis, some organic affection of the heart, or a cirrhosis. Here, we can eliminate without a very long discussion the hypothesis of chronic peritonitis, for the effusion is produced very slowly and without pain of any kind; besides, we have been able to prove by palpation that the liquid is quite at liberty in the abdomen, and that there is no tumefication, or any hardness, that would allow us to think of distinct pouches that would be separated by adhesions between the visceral and parietal portions of the serous membrane. Add to this that nothing in the antecedents of the man nor his actual state, permits us to think of tubercle or of cancer, and so, we can throw out the first point from our consideration. This having been done, you will now inquire which of the two other maladies it is? It may seem strange to you that I put the question as to whether ascites that is not accompanied with œdema, can be from a cardiac origin or not? because you see in your books that cardiac ascites is always accompanied by œdema of the lower limbs, and that is what distinguishes it from hepatic ascites, but unhappily in practice it is not at all easy to make the distinction; and, also, for certain affections of the heart the extravasation of serosity from the capillaries manifests itself first of all in the serous membrane of the abdomen. Of these troubles, I can speak of tricuspid insufficiency, and it is not astonishing that such forms of ascites come from the same mechanism as those of hepatic origin. What happens when the tricuspid valve is insufficient? Why, the blood wave is thrown towards the two venæ cavæ, and at the lower opening—the opening of the inferior vena cava—it soon meets the openings of the hepatic veins and the wave is thrown into them, so that there is very shortly produced a "*stasis sanguin*" in the liver which in time will produce disorders such as result from cirrhosis,—that is to say, that the tension of the blood in the portal system is exaggerated, and that system permits the transudation of a part of the serum that it contains. The influence of this stasis remains for a long time confined to the venous system that is nearest to the heart, and so, for a long time the lower limbs are without any signs of œdema; besides, this reflux does not act on the other veins near by, so the renal vessels are not implicated and the usual urinary troubles are keep off for quite a long time. I am supposing here a pure tricuspid insufficiency, for if there was also a lesion of the left heart, it would be different, and the case would come under the usual rules. So, then, we should ask ourselves if this case is not one of a tricuspid origin? and indeed I did so with negative results, for I did not find any augmentation of the liver nor any beating of that organ that was synchronous with the ventricular systole as would have been the case if it were such a disease. As to venous pulse, he seemed to have it, but in studying it, we soon saw that it was not the form seen in tricuspid insufficiency, which coincides exactly with the ventricular systole. In his case the venous pulse was found to *precede the systole* and is produced by the falling together of the vein at the moment of the flow of the blood, that is, in the interval of the pulsations. That is rather difficult to appreciate, but on comparing the pulsations of the vein with the arterial pulse, it will be felt.

If these signs failed us those of cirrhosis did not. We have at first those given by an examination of the hepatic region. The liver can be felt in the right hypogastric region, its border is hard, not a little rounded, but unusually so, and it is very lumpy and uneven. These lumps are very large, which is not the case in cancer. We concluded, then, that the liver was retracted, and you all know that that is the character of atrophic cirrhosis; but on a careful examination there does not seem to be much difference in the size of this liver and the normal, so we hesitated and at once examined the spleen and found it very much enlarged. It measures over twenty centimeters in height. Here you have a sign of great value in cirrhosis as it often provokes an enlarged spleen. The proportion cannot be established, as most authors state that it is wanting in one-half of the cases; however, if an enlarged spleen does not prove cirrhosis, its absence does not prove that cirrhosis does not exist. If you find the spleen enlarged I consider it of great importance. This of course is modified by stating that you must be sure that the patient has no typhoid antecedents.

The fact that the liver in this case is not much retracted, if any, there remains to be considered: Ought we to range this case among the atrophies or among the hypertrophies? In the first you are aware that the proliferation manifests itself above all in that part of the tissue that accompanies the portal capillaries and that they atrophy at the same time as the hepatic cells; but in the second case the proliferation is felt in the tissue that accompanies the biliary vessels and the malady commences by the obliteration of the bile capillaries with the appearance of jaundice. This distinction has not, however, the practical importance that it should have, and in the great majority of cases, these conditions are mixed, and the two varieties are confounded, so that the proliferation takes place in the *whole* tissue of the liver. It is probable that this is the case here, for while the lumps and the irregularities of his liver lead us to suppose that it is an atrophy, the volume of the liver leads to a hypertrophy, and it is no doubt a mixed case, which will be more frequently found if more care is taken in the examination of these cases. I recognize, though, that in this case the atrophic part is predominant, and we can affirm that it is the capillaries of the portal system that are affected because there is no jaundice, and therefore the bile vessels are not injured as yet, and the appearance of the ascites is sufficient to allow us to make that diagnosis.

The history of this patient is not only interesting as to the diagnosis but also as to the march of the disease. The progress of cirrhosis is fatal, and the lesions that characterize it make their evolution as a rule in fourteen or fifteen months. There are, however, exceptions to this, for it has been known to last only a few months and to continue for two years. In the first case it will proceed by fatty degeneration with great rapidity, and the patient will be in a condition similar to a man who is attacked with acute atrophy, and the symptoms that announce death will be different kinds of hæmorrhage, and intense cerebral troubles, with a state of coma accompanied with fall of temperature, etc.

In the second class of exceptions it seems as though the patient lets the disease sleep and for a time gives hopes of a cure; even the tendency to abdominal effusion seems to stop, or at least to remain within certain limits. It is evident that this is the case with our patient, who since four months ago when they took away eighteen quarts, he has only accumulated perhaps six to eight from that time to the present. This is not extremely rare, and I have seen it several times in cases where there has been some slight inflammation, but the circumstances that have the greatest influence over this disease is the modification of the *regimé* of the patient. Cirrhosis, as no doubt you have heard, is almost exclusively produced by alcohol, and I will add by alcohol taken in a certain form. Curious to say, it is not the extreme drinkers who get it, but those poor devils who drink that detestable brandy which is sold at the little shops, and which they take pure before taking any food in the morning. It is then the morning dram drinker (who takes the liquor pure and without having had his breakfast) that is most subject to cirrhosis. In these conditions the liquid exercises its effect and its irritating action first on the portal venous system, as it goes through this system first, passing at once into it from the stomach, as Professor Beclard has shown and as you all know from your physiology, that all liquors pass at once from the stomach into the portal vein. Here it comes in contact with the biliary canals before going to the general circulation. So change the habits of the patient at once. Suppress all alcohol, at least at that hour, and taken in that fashion, and if no accidents have taken place, you may prevent them. This is what has been done in this case, and we have been able to arrive at these results through a milk treatment. It is an excellent treatment for these cases, but you must know that it is so simply because it is not alcohol; so, you must not abuse it, but maintain it in moderation, and not allow the strength of the patient to fail him, which must be prevented at all costs. So you will prescribe a fortifying *regimé.*—purgatives may be used in moderation, even calomel, if given in a transitory way, can be used. The diet must be mild and alkaline mineral waters may be used in most cases; and let me repeat, do not neglect the great point, which is to keep up the strength of the patient at all hazards. Keep the bowels open but do not act severely on the intestines.

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY F. B. FLORENTINE, M. D., SAGINAW CITY, MICHIGAN.

SOCIETIE MEDICALE DES HOPITAUX, PARIS.

SESSION OF JANUARY 9, 1886—DRS. VIDAL AND GUYOT PRESIDING.

THE TREATMENT OF TUBERCULOSIS PULMONUM BY PARENCHYMATOUS INJECTIONS.

DR. GONGUENHEIM reads a work upon the treatment of tuberculosis pulmonum by parenchymatous injections: I recall at first the labor of the American physician, Dr. Pepper, of Dr. Nothnagel, of Vienna; and of Professor Lepine, of Lyons. Some used iodoform and others corrosive sublimate. I wished in my turn to experiment upon this mode of treatment. I at first searched upon the cadaver for a suitable place where I could introduce the point of a Pravaz syringe through the chest into the lung. Then, upon the living I practiced punctures and successive injections, and upon those patients that ultimately succumbed to the progress of the disease, I could convince myself that the punctures were inoffensive. I used, moreover, for injections, bichloride of mercury. I would inject sometimes as much as a syringe (Pravaz's) full; and besides, notwithstanding that I have been using stronger solutions than that employed by Dr. Lepine, I never met with any accidents of intolerance. These injections are not painful, but sometimes cause exacerbations of coughing. The results have been as follows: Rapid amelioration of the signs furnished by auscultation; but, in a certain number of cases, the results have been *nil.* I have had twenty-one favorable cases, and I observe as yet a certain number of these patients who are at present under my care. In cases of pleurisy, after puncturing, I have also employed these injections with good results. In short, this new method of treatment has given me encouraging results, and deserves to receive further experimentation.

Dr. Dienlafoy: I have, myself, tried injections of carbolated glycerine in caverns, and for this purpose I would ask Dr. Gonguenheim if he has ever made any injections in cases of infiltration, as well as in caverns. I treated by this means fifteen or eighteen tuberculous cases with caverns. All my patients had painful exacerbations of coughing. I never obtained good results, neither local nor general.

Dr. Gonguenheim: I would answer to Dr. Dienlafoy that all the patients on whom I made injections had caverns, and I was struck to see with what rapidity the physical signs were improved. Unfortunately, the general state did not always respond in the same favorable manner, but, nevertheless, a few cases have fully recovered. Otherwise, in America, Beverley Robinson has related results still more remarkable. Dr. Lepine has also given practical injections of very weak solution in cases of pneumonia, and obtained good results. It is true that we have to take a great deal of precaution, in fact I insist very much on that point.

Dr. Dienlafoy: I admit that I have made, as yet, too few injections to judge definitely on that point; but I ask Dr. Gonguinbeim if he makes any injections in cases of infiltration.

Dr. Gonguenheim: My best results have been obtained in my milder tuberculous cases. In cases of infiltration I would make the same injections that Dr. Lepine made for pneumonia.

Dr. Leroux asked if bacilli was looked for in the sputa.

Dr. Gonguenheim: My patients were affirmed cases of tuberculosis pulmonum, and I believe that we can diagnosticate tuberculosis without looking for bacilli.—*France Medicale.*

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

SERVICE OF DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY WM. P. MUNN, CLINICAL CLERK.

CHRONIC CYSTITIS—WITH MORPHIA HABIT.

F. P., aged twenty-two; carriage trimmer. Admitted to hospital October 2, 1885.

History and Present Condition.—In February, 1882, from some unknown cause, he sustained a rupture on the left side. One year later he began to have frequently repeated desires to urinate, accompained with spasmodic stricture of the urethra and enlargement of the left lobe of the prostate gland. Sounds were passed to correct the stricture. At the end of three months this was relieved. During this time the painful and almost hourly urination had been continued, the urine being mixed with blood and mucus. The blood passed was bright red in color and appeared usually at the first of the micturition. About three months ago the blood disappeared, and since has not been present in the urine. At present he is compelled to empty his bladder almost every hour. He has also a prolapse of the lower bowel. He denies ever having syphilis or gonorrhœa.

October 3: The patient was presented to-day at the medical clinic, and examined by Professor Palmer. His anæmic condition and pale countenance were regarded as suggestive of some carcinomatous disease of the bladder. The case was considered surgical and the patient was turned over to the surgical clinic. The urine contains a large quantity of pus. To-day the patient asserts that he had been instructed by a former physician to introduce iodoform into the urethra with a probe made out of hickory wood.

October 5: The patient seen in surgical clinic by Professor Maclean, who proposed to pass a sound, to determine the possibility of a foreign body being in the bladder. The patient objecting to any exploratory examination it was deferred.

October 8: Again presented in clinic and placed under the influence of chloroform, when sounds were passed by Professor Maclean and a thorough examination made, but no foreign body could be detected. Examination per rectum negative. The statements made by the patient to-day are contradictory to those made on previous occasions, and it being discovered since his admission into the hospital that he is a morphia eater, using as much as sixty grains per week, Professor Maclean thinks that much and probably all of the patient's trouble may be traced to this habitual use of morphia.

October 11: The amount of morphia being gradually discontinued. Complains of much pain in the region of the bladder.

October 15: The patient appears to be gradually improving. The quantity of morphia is being constantly diminished. It is given in suppositories, containing one and one-half grains each. According to circumstances, one or two are used daily.

October 26: Quantity of morphia in suppositories reduced to one and a quarter grains each. The urine continues to show large quantities of pus.

November 2: Urine quite acid and produces severe scalding when passed. The amount of pus growing less.

November 9: Catheter passed and the bladder washed out. A slight tendency to spasmodic contraction of the urethra.

November 23: The bladder continues irritable and free quantities of pus appear in the urine. To give relief and rest to the irritated bladder Professor Maclean proposes to perform the lithotomy operation; but the patient fearing that "experiments" would be attempted, the operation was deferred until he would be convinced of its necessity. No morphia is now administered and he claims that he is taking none, but there is some doubt as to the accuracy of his statement.

December 3: Great pain is complained of and the frequent micturition continues. Patient brought before the class and placed under chloroform, and the left lateral operation for stone performed. The interior of the bladder feels rough, hard and furrowed.

December 5: The urine flows freely through the wound. The bladder is irrigated twice daily through the incision. Patient irritable, and complains of great pain, especially in the tract of the urethra during the irrigation.

December 7: Difficulty in passing the catheter through the wound. The bladder is washed out through the urethra, the water escaping freely through the wound.

December 12: Considerable water passes through the urethra when the bladder is washed out through the wound. The urine continues to escape freely through the wound, but some passes per urethra at night. The urine still contains considerable pus.

December 19: The catheter is passed through the wound with some difficulty, as the passage is becoming tortuous from encroachment of granulations. Catheter has also been passed through the urethra for several days. Dr. Sullivan first passed a sound through the urethra on the 17th. Urine contains considerable mucus; pus greatly diminished.

January 11: Wound almost healed. Nearly all the urine now passes through the natural channel. He has no pain and is gaining in flesh rapidly.

January 21: Very slight dribbling continues through the wound. Patient presented in clinic. Paquelin's cautery applied to orifice of the sinus through which the urine dribbles.

January 26: Discharged.

March 4: Returned. Perineal wound not completely closed. Placed under cloroform and wound thoroughly cauterized. Narrow elongated prepuce removed.

March 7: Wound of circumcision healed by first intention.

March 19: Perineal wound closed and solid. Discharged, cured.

UMBILICAL HERNIA.

Mrs. A. S., aged forty-three. Admitted to hospital November 12, 1885.

History.—Thirteen years ago a very small enlargement was noticed near the umbilicus after an attack of vomiting during pregnancy. For two years it increased in size and then ceased growing until one year ago; since then it has grown rapidly. When last measured it was seventeen inches in circumference. At first it could be returned, but now it cannot be reduced. It is necessary to wear a bandage to support the tumor. Cannot stoop or flex the body on the thighs. There is severe pain when she coughs, or eats food that does not agree with her, or when she is constipated. At times it becomes partially strangulated and turns quite dark. Complains of pain in the back. Continues to menstruate regularly. General health is otherwise good.

Presented at clinic. A case of umbilical hernia. Operation unadvisable, on account of the fatality that usually attends such cases. The peritoneum, so tolerant of manipulation and incision in ovarian and Fallopian tumors, does not bear much surgical interference in this class of patients. Operative procedures should not be resorted to unless there is imminent danger from strangulation of the hernia.

SOFT SARCOMA OF THE RIGHT TESTIS FOLLOWING INJURY: REMOVAL.

Wm. W., aged forty-one; farmer. Admitted to hospital October 7, 1885.

History.—During the summer of 1884, while working in harvest, he fell astride of a fence. His right testicle at once began to enlarge and soon attained a large size. There was much pain following the injury. The skin and deeper tissues of the scrotum were bruised. Under proper treatment he appeared to fully recover. During the past summer the swelling returned and an abscess formed on the right side of the scrotum. The abscess pointed and broke without surgical interference one week ago. It has continued to discharge a free quantity of pus and blood. There is no special pain, though the testicle is swollen to almost the size of a man's fist, and is very hard. The general health is good; appetite and digestion morbid, bowels regular. He has taken no internal treatment.

October 8: Presented in clinic. There is a profuse and fetid discharge from the diseased part. Upon examination there is no evidence of any normal testicle substance. The tumor is a mass of inflammatory deposit and degenerated tissue, probably sarcomatous in character, and should be removed at once to prevent infiltration of the surrounding tissues and infection of the general system.

Operation.—The patient placed under the influence of chloroform. A circular incision made through the scrotum, which is carefully dissected from the tumor, in order to avoid any loop of intestine, which, from a tumefacture, there is a suspicion may have come down. The swelling proves to be a hydrocele of the cord, which is freely opended with the knife and the tumor quickly removed. Three bleeding points are ligated, and the edges of the wound closed with silk sutures. Ice dressing is applied.

On section the tumor is found filled with pus and degenerated and softened tissue, with no trace of glandular structure of the testis.

October 9: Ice dressing discontinued and dry dressing used. In a few hours after the change of dressing, secondary hæmorrhage set in. The wound was opened, and after some difficulty, two bleeding arteries were found and ligatured. No special bad effect from opening the wound.

October 12: Shown in clinic. Progressing finely.

October 19: The wound has continued to heal and patient sitting up part of the time.

October 22: Has been up and about the ward for two days. Wears a suspensory bandage. The swelling in surrounding tissues all disappeared, and there is no evidence of there being any infiltration of the disease.

November 7: Discharged, cured.

GENERAL CORRESPONDENCE.

A SANITARY CONVENTION AT HOWELL, MICHIGAN, HELD UNDER THE AUSPICES OF THE MICHIGAN STATE BOARD OF HEALTH.

The sanitary convention at Howell, Michigan, held under the auspices of the Michigan State Board of Health, began its session Wednesday, March 3, at 2 o'clock, P. M. There was a large attendance of citizens throughout all the meetings. Dr. R. B. Smith, of Webberville, Dr. John P. Stoddard, of Muskegon, Dr. David Inglis, of Detroit, Reverend D. C. Jacokes, D. D., of Pontiac, Professor Victor C. Vaughan, M. D., of Ann Arbor, Dr. John Avery, of Greenville, Dr. John H. Kellogg, of Battle Creek, Wm. P. Appleyard, architect, of Lansing, W. W. Barcus, of Muskegon, Dr. Henry B. Baker, of Lansing, and others, including a few ladies, from abroad, attended the meetings.

The mayor, Honorable Jay Corson, made a pleasant address of welcome, emphasizing the importance of the objects of the convention.

Reverend M. H. Petit, the president of the convention, in his address made a strong plea for the progress of sanitary reform, because of its influence in improving the moral condition of the people and the general uplifting of the human race.

The first paper, "Ventilation," was read by Wm. P. Appleyard, architect, Lansing, Michigan. He thought that one of the greatest difficulties with which sanitarians had to contend was the indifference of most people, and that this difficulty was greater in regard to ventilation than to any other subject. Impure air is an intangible enemy with which we have lived so long that we do not realize his presence, and is, consequently, an enemy of the most dangerous kind. He spoke of the constituents of ordinary air, of the life-giving power of oxygen, of the poisonous effects of air which has been breathed and re-breathed, its oxygen replaced by carbonic acid and other dangerous poisons. He gave an illustration of a bedroom of common size with no ventilation, occupied by one person, and showed that at the end of one hour the air would be far from pure, and at the end of eight hours would be literally poisonous. He showed the importance of the ventilation of ordinary school-houses, and gave practical directions how good and constant ventilation could be secured; also directions for the ventilation of private houses. He recommended the hot-air furnace with a good, straight chimney from the foundation of the house, large cold-air ducts to introduce plenty of fresh air, and enough flues surrounding the smoke-flue from the furnace so that foul-air register openings can be made into a separate flue for each room. The foul-air exits should be at the floor level. The proper placing of the exit registers insures a constant circulation of air, and avoids the drafts which open windows or doors cause. An open fire-place is an admirable means of ventilating a house when used in connection with the hot-air furnace. Do not, on the score of economy, reduce the number of flues or of chimneys that are needed. In planning a house, get the assistance of an expert in arranging the plan for the ventilation.

Dr. John H. Kellogg, in his discussion of the subject, commended this paper, and pointed out the fallacy of the assumption sometimes made that only so much fresh air must be introduced into the room as there is impure air breathed into it by the occupants. It is impossible to take the foul air, and that only, out of the room; the best that can be done is to take out a part of all the air of the room, including the good air with the bad, and to replace this by fresh air brought in from out doors, introduced in sufficient quantity to maintain a reasonable degree of purity, which is believed to be the case when there are only about six or eight parts of carbonic acid in ten thousand of air. Dr. Kellogg gave a mathematical formula for determining the sizes of air inlets and outlets. The movement through the exit register is due to the difference in temperature of the air in the chimney or other foul-air flue, and of the air out of doors; because warm air ascends. The rate of movement depends also upon the height of the chimney, and may be learned in feet per second by multiplying the square root of the height of the chimney by the difference between the two temperatures named, and dividing the product by four. The number of occupants of the room must then be known. He would give to each occupant two thousand cubic feet of air per hour; and the size of the exit pipe should be equal to the size of the inlet.

"The Sanitary Condition and Needs of our Public Schools," by Professor Geo. Barnes, of Howell, and "The Sanitary Condition and Needs of our Public Buildings," by Reverend Geo. F. Walters, of Howell, were able and interesting papers of more than local interest, read and discussed in the evening, after which—

Dr. David Inglis, of Detroit, delivered an address on "Alcohol as a Factor in the Causation of Insanity."

Thursday morning, March 4, Dr. John H. Kellogg delivered an address on "Slops, Garbage and Refuse: How they are disposed of, and how they should be disposed of." In the discussion that followed relative to this subject and to the subject of drainage and sewerage, Reverend D. C. Jacokes, of Pontiac, spoke on the benefits of the dry earth system of disposal of excreta and the methods of its employment. Dr. Victor C. Vaughan, of Ann Arbor, spoke of the beneficial effects of sewerage and drainage, and gave many instances. In the city of Munich, after the sewerage and drainage of the city, the death-rate from typhoid fever was reduced about one-half. After the introduction of a pure water-supply, it was still further reduced. The city of Memphis, Tennessee, was honey-combed with privy vaults, and deep wells over which privies were placed. The death-rate was large in every year; and finally yellow fever found a suitable home in Memphis, while New Orleans and other Southern cities were comparatively exempt. Many people abandoned the former city, which, without a sanitary reform seemed to be doomed. But under the guidance of the National Board of Health, Waring's separate system of sewerage was constructed throughout the city, and Memphis is now prosperous again, and its death-rate has been greatly decreased.

Thursday afternoon, Reverend J. S. Joslin presented a paper on "The Religion of Health." J. A. Wessinger, M. D., read a paper on the "Water Supply of Howell," giving the depth of wells, details of their surroundings and present condition of water as shown by analyses of water from many wells in different parts of the village. He stated a standard of purity, compared with which the water from most of these wells would be classed, as "bad," some as "suspicious," a few as "usable," and one as "good." He exhibited diagrams showing the surface strata of the earth in the village, and illustrating the manner in which the fluids from the privies filtered down into the sand and gravel water-bearing strata, also the local lowering of the water in such strata due to the pumping of large quantities of water, and the consequent bringing to the well of the fluids from the neighboring privies too distant for their "cone of soakage" to reach the well. He instanced cases where the privy was not more than fifteen feet from the well. In one case there were two privies within fifteen feet of a well. The analysis of the water in this well showed it to be bad.

The discussion of this subject was lead by Professor Vaughan, of the University, Ann Arbor, who afterwards gave an address on the general subject of drinking-water and water-supply. He classified these as (1) cistern-stored rain-water, as (2) surface waters from lakes and rivers, as (3) subterranean from wells, and as (4) artesian from deep wells. If necessary precautions are taken in collecting and storing, he regarded the cistern-water as the safest. Rain-conduction should have cut-offs to waste the washings from roof. Cisterns should have their walls plastered on the outside as well as the inside to protect from infiltration of foul waters from the earth. Well-water he characterized as generally suspicious. The water from deep wells is generally safer than that from shallow wells, especially when brought to the surface through pipes which do not let in soil-water.

Rollin H. Person, Esq., of Howell, led a discussion on "The Powers and Duties of Local Boards of Health." Their powers were absolute and frequently from their acts there was no appeal. The reason for such law was the common necessity for immediate action to guard the public life or health; but while this was the law, and theoretically their action, practically their duties were frequently ignored, for the reason that public sentiment did not sufficiently sustain them. He thought there was great and general need for a more enlightened public sentiment, which would demand of health officers prompt and vigorous action for the protection of the public health. He thought such conventions as this would do much to awaken people from their apathy, and would make it possible to have the action of local boards of health conform more nearly to the theoretical requirements of the law. He was followed by the Reverend Dr. Jacokes, of Pontiac, who spoke of the wide-spread and beneficent influence of the State Board of Health in stimulating to activity the local health authorities, in collecting from and disseminating to them useful information relative to their work. He appealed to all health officers to respond promptly and carefully to all questions asked by the State Board of Health in order that the information which it collects should be as complete and valuable as possible. He paid a high tribute to the unselfish work by physicians generally in the cause of public health, and urged that the people should see to it that, while physicians are thus working for the public good and decreasing their practice, the people should properly compensate them, and suggested that physicians would be placed in better relations to the people if they were employed by the year to advise people how to keep well.

Thursday evening, Honorable John Avery, M. D., of Greenville, President of the State Board of Health, read a paper on "The Prevention of Communicable Diseases" which, in their order of importance as causes of death in Michigan are as follows:—diphtheria, typhoid fever, scarlet fever, whooping-cough, measles, small-pox. He showed the great importance of efforts for their prevention on account of the lowest consideration, the money loss which, he said, had been placed at a thousand dollars for each person who dies in early adult life, and each case of fatal sickness represents many more cases which involve great expense. The annual loss in Michigan amounts to millions of dollars. He explained the different ways in which the several communicable diseases are spread, and gave brief directions for their restriction and prevention.

Remarks were made by the President and the Secretary of the convention, and, on motion, a committee was appointed to make arrangements for a permanent local sanitary association to continue the work so auspiciously begun.

Henry B. Baker, M. D.

A CASE OF SUSPECTED CHOLERA IN PINCONNING, MICHIGAN.

Michigan State Board of Health,
Office of the Secretary,
Lansing, Michigan, March 25, 1886.

March 19, 1886, I received the following from W. B. Abbott, M. D., health officer of Pinconning, Michigan:

"On the evening of the 16th instant was called to attend Mr. A. T. Smith, aged forty-three, who was taken at about 7 P. M. with vomiting and diarrhœa soon followed by cramps. When called I found him in this condition which was rapidly growing worse. I soon controlled the former symptoms but the cramps continuing, Dr. C. T. Newkirk, of Bay City, was called in council.

"The matter vomited and dejected was a clear serous liquid, slightly acid and in very large amount. Soon symptoms of collapse came on,—the extremities became cold, and the pulse decreased and finally ceased at the wrist, the sight left the eyes and roaring sound filled the ears, the voice became hoarse, the face assumed a most anxious expression, the eyes became lusterless and fixed, the cramps were most distressing. By 11 P. M. the symptoms began to abate. At 11:30 Dr. Newkirk arrived who pronounced it a case of cholera, and as this doctor has attended a very large number of cases in South America during the great epidemic there I thought it but right to respect his opinion so far as to write this description. There was not the bilious matter in the emesis, but 'rice water' vomit, instead. The patient is improving but is still followed by *suppression* of urine."

March 19, I went to Pinconning to investigate. Since my return I have received a letter from Dr. C. T. Newkirk, of Bay City, Michigan, who was called by Dr. Abbott to see the case, in which he says: "The skin was cold and covered with a dampness which I believe is peculiar to cholera; lips and skin were blue; the voice was hoarse; stools were of the nature of rice water; no blood or bile was ejected; legs, arms, and stomach cramped terribly; pulse very low; eyes sunken; labored breathing; great thirst. The nose and tongue were cold; there was suppression of the urine; the face was pinched; temperature 97°. After about two hours the body began to get warm, and in eight hours pulse came up to 120; temperature, 103."

Dr. Newkirk also says: "I have had a large experience with cholera, and have no hesitation in pronouncing this a case of Asiatic cholera."

Dr. Newkirk is a graduate of Victoria College, Toronto, and is an old practitioner.

I reached Pinconning at 11:20 P. M., March 19, and immediately made an investigation of the case. The patient was yet in bed. Mr. Smith is a prominent lumberman, forty-three years old. He still looked haggard, and appeared somewhat restless; his tongue was not coated; his pulse was full and strong and not much faster than normal.

By questioning the patient and others I verified so far as non-professional observers could verify the observations of the physicians. From the patient I also elicited the fact that during his attack he did not suffer from colic, nor from much pain in his bowels, and that the passages were painless. His first loose discharge was while he was in camp—eight miles distant—but as he did not use a privy it seemed impracticable to secure any disinfection of that substance. He and his wife are unusually intelligent persons; and Mrs. Smith suspected from the first that it was cholera. All discharges were received into vessels containing copperas. When these cases are not followed by other cases, they are not usually believed to be genuine Asiatic cholera, but owing to this intelligent precaution of the family, and to thorough measures of disinfection afterwards ordered and which have probably been used, this test will not apply.

Besides giving directions as to disinfection which I was assured would be faithfully attended to, I made inquiry as to the possibility of Mr. Smith's having accidentally taken some irritant poison, such as tartar emetic or corrosive sublimate, but no probability of that kind could be made out. I also made vigorous efforts to learn any possible way in which cholera might have been brought into Pinconning. Immigrants had recently arrived in the vicinity, but none were from a place known to be infected. The men in the camp where the patient had been had not been outside the state, nor had Mr. Smith been out of the vicinity. As to fruits from the Mediterranean, oranges had been in the house, but the patient is not fond of oranges. He is fond of raisins, however, and has been in the habit of eating them uncooked. A box, partially emptied, in the house, apparently came from Valencia, Spain, and the raisins were not coated with sugar but were apparently fresh, probably of the crop of 1885, at which time cholera is known to have prevailed extensively in Valencia. Whether there is any connection between the box of raisins and the case of sickness is yet problematical.

The water-supply in Pinconning is from wells, which are now (March 20) full nearly to the surface of the ground; there is not much purification of the water by filtering through the few feet of sand and sawdust which overlies the clay. One well in front of a public house is about thirty-five feet from that part of the railroad track which is under the closet of the passing cars, so that if there should chance to be any dropping from the closet of a passing car, it might with the spring rains be washed almost immediately into the well, and be quite freely distributed to those who drink from that well. There is no evidence connecting it with this case of sickness, but that is not a very safe well to drink from, and might be liable to be infected if any infectious disease should pass through on that railroad. The character of the soil and its relations to the soil-water used for drinking purposes in Pinconning render it very important that there should be thorough disinfection of all infectious discharges thrown into privies or upon the surface of the earth. The officers and members of the local board of health told me they were in the habit of thoroughly disinfecting privies every spring. I urged upon them the importance of doing this with especial thoroughness this spring, and also the importance of prompt disinfection of the privy and surroundings at the residence of the patient whom I went to visit.

HENRY B. BAKER, M. D.

EDITORIAL PERISCOPE.

INFANT FEEDING.

At the stated June meeting of the Philadelphia Obstetrical Society, Dr. J. M. Keating made the following remarks on the feeding of infants:

At my request Dr. Charles Potts instituted a series of experiments which have a decided practical value, and we hope to present them to the Society at an early date in full. I desire to place on record a statement of the results so far reached, which appear to be interesting and important. The question often arises: Is it of advantage, or not, for an infant to be partly nursed and partly bottle-fed? What action has milk upon starch, if any? To answer this the following tests were made:

(1) A sample of milk composed of the milk of several women. Quantitative estimation of the sugar in it by Fehling's method showed six and eighty-four one-hundredths per cent; ten cubic centimeters of this milk was then taken and one-half gram of powdered starch added, allowed to stand at a temperature of 99° for thirty minutes, after which five cubic centimeters diluted with forty-five cubic centimeters of distilled water was tested and showed eight and sixty-two hundredths per cent. of sugar. The other five cubic centimeters after standing sixty minutes gave nine and nine hundredths per cent.

(2) Another sample found to contain seven and fourteen hundredths per cent. of sugar had a one-half gram of powdered starch as in number one. In thirty minutes it gave nine and eight hundred and three thousandths per cent. of sugar in five cubic centimeters. The other five cubic centimeters after remaining sixty minutes gave eight and sixty-two hundredths per cent. Possibly part of the sugar deposited and was drawn off with the first five cubic centimeters.

(3) Another sample showed six and thirty-two hundredths per cent. of sugar and after adding the starch, as before, gave in the first five cubic centimeters, eight and nineteen hundredths per cent. The next five cubic centimeters, seven and ninety-three hundredths per cent. These investigations show that the woman's milk gave an increase of sugar after digesting with starch.

(4) A sample of cow's milk was tested and found to contain three and eighty-seven hundredths per cent. of sugar; to this was added a one-half gram of starch to ten cubic centimeters. At the end of thirty minutes five cubic centimeters diluted with forty-five cubic centimeters of distilled water showed no increase of sugar.

(5) A sample of cow's milk gave four per cent. of sugar, and was treated as before, but at the end of thirty minutes, and then in sixty minutes, it gave the same result.

(6) Another sample of cow's milk gave three and seven hundred and three thousandths per cent. of sugar; was treated as before with same amount of starch. In thirty minutes five cubic centimeters gave same result; in sixty minutes five cubic centimeters gave same result. These investigations show that cow's milk gave no increase of sugar after adding starch. Does the acidity of cow's milk prevent the sugar change? Does the sugar change continue in an acid medium?

(7) Took another sample of human milk from one woman. It yielded six and twenty-five hundredths per cent. of sugar. Added starch as before. In thirty minutes five cubic centimeters gave seven and fourteen hundredths, and in sixty minutes five cubic centimeters gave seven and six-tenths per cent. Took ten cubic centimeters of this milk (six and twenty-five hundredths per cent. of sugar), and added a few drops of chemical pure dilute hydrochloric acid, enough to faintly acidulate it, and then added one-half gram of starch and let it stand as before. In thirty minutes five cubic centimeters gave six and forty-one hundredths per cent., and in sixty minutes five cubic centimeters gave seven and thirty-five hundredths per cent. of sugar.

(8) Another sample of woman's milk without starch gave six and seventeen hundredths per cent., with starch seven and twenty-four hundredths per cent., ten cubic centimeters of the same, acidulated with chemical pure dilute hydrochloric acid, gave in thirty minutes seven and thirty-five per cent. In these tests ten cubic centimeters of Fehling's solution were used with forty cubic centimeters of distilled water.

If future investigations prove the correctness of these statements, we may safely assert that the nursing women may supplement her breast milk with some well prepared digestible form of food containing a small quantity of starch advantageously, and also that the amylolytic ferment will remain active in the slightly acid stomach of the infant.

CONDENSATIONS.

The American Surgical Association will meet in Washington, District of Columbia, on April 28, 29, 30, and May 1.

Journal of Reconstructives, Dietetics and Alimentation, is the title of a new quarterly edited by Wallace Wood, M. D., and published by John Carnrick, New York.

We are pleased to accept from the hands of Professor Corydon L. Ford, M. D., LL. D., copies of the plans and photographic view of the Saint Thomas Hospital, London. It is located on the Thames, opposite the Buildings of Parliament, and consists of seven magnificent buildings, with ground floor connecting halls. Each building provides accommodations for over five hundred patients.

Sir Henry Thompson can be truly styled a versatile man. As a physician he attained eminence many years ago, specially distinguishing himself in the field of urethral surgery. He is also well known as an artist, having frequently been an exhibitor at the Royal Academy. He is not unknown as a writer and speaker, having on several occasions championed the cause of temperance reform. He is now busy with a new novel, and bids fair to attain equal renown in the field of romance.

INFLAMMATION of the breast, when threatened by the symptoms of distension, redness, throbbing and pain, is said to be aborted by the use of fomentations of hot water and ammonia. An ounce of carbonate of ammonia is dissolved in a pint of boiling water, and when solution is effected the temperature will scarcely be too high for fomentation with cloths dipped in the liquid. These must be assiduously applied for half an hour at least, and repeated for two or three hours if necessary.

THE GOOD EFFECT OF A DISGUSTING CUSTOM.—A southern secular paper is authority for the following statement regarding the fattening effect of chewing gum: "Twenty years ago the rule was the Southern women were thin and delicate; it is not the rule now. Southern women are not physically equalled in all North America. Any physician who is as well informed as he ought to be, will tell you that this is true. This change is due to the habit of chewing gum. You may smile, you may even laugh if you please, but I am telling you a plain fact. As to Southern men, they are as thin and gaunt as they ever were, and so they will remain until they cease to chew tobacco and begin to chew gum."

WE are in receipt of letters of instruction and printed description from the popular publishing house of P. Blakiston, Son & Company, relating to the fifth edition of "Holden's Anatomy," which was reviewed some months ago in this journal. To those familiar with the work, attention hardly need be called to the originality in diagrams, clearness and accuracy of the plates illustrating the various dissections, and the conciseness of the subject matter; but we wish to call attention to the improvement made in the binding. To meet all the wants of the student the book has been made to *lay open flat* at any page, and a special edition, bound in oil-cloth cover, furnishes a book not easily soiled and that may be washed.

EMBALMING the dead as it is now practiced has its medicolegal aspect. The introduction of embalming fluids containing arsenic and mercury into a body after death covers up all evidence of the premeditated administration of these poisons before death, and thus the ends of justice are defeated, and the foulest murder go undetected. The custom has its sanitary aspect in the effect upon the germs of contagious diseases.

The death of a half dozen students from small-pox but a few years ago is proof positive enough to show that filling a body with a saturate solution of arsenate of soda will not kill the germs of that disease. These aspects are suggested by the fact that a bill to prevent embalming has been introduced into the Rhode Island legislature.

TO THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.—Upon request we are pleased to publish the following information: The rates given to the delegates to the American Medical Association meeting May 4, in Saint Louis, have been fixed by the different railroad companies of the country at one and one-third fares for the round trip. Delegates must pay full fare coming, and will receive on application, from the agent at the starting point, a certificate, which, when signed by the Chairman of the Local Committee of Arrangements, will entitle them to the reduced return rate. No reduced return ticket will be issued unless the purchaser can show a certificate issued by the agent from whom he purchased the going ticket, and signed by the Chairman of the Committee of Arrangements, "LaGrand Atwood, Chairman Committee of Arrangements."

TECHNICS, upon entering its third volume, assumes a new form and dress. The scope of this journal is novel. It is the official organ of the American Association of the Red Cross. It has no interests in any specialty, and communications are invited upon all subjects likely to be of interest to the readers, although the subjects may not have a direct bearing on medicine or surgery. This Association of the Red Cross is no "order," and there are no "members of the Red Cross," only members of societies whose sign it is. The Red Cross is not a religious emblem or society; it is not an emblem of knighthood or secret society. The amlet from which the cross was copied, was worn during the Franco-Prussian war. In time of war the wearer of the red cross is non-belligerent and is held neutral by all parties engaged. Being neutral the wearer theoretrically knows no enemies and should render assistance to all who may need it. The red cross protects all who are connected with it from hostile attacks. It is a sign of peace in the midst of war, of mercy in time of cruelty and massacre. The *Technics* which represents this association, has in rational medicine a neutral position, avoiding all carping, criticism and invidious remarks, which bear upon their face evidence of prejudice and malice. This journal is published weekly, and edited by Jas. H. Warren, A. M., M. D., and Char. Everett Warren, M. D. Office 51 Union Park, Boston, Massachusetts. *Technics* combines the features of an index and an epitome; it aims at practicability and brevity. We dwell on the merits of *Technics* because we wish to comment it to our readers.

NEW PUBLICATIONS.

PUERPERAL CONVALESCENCE AND THE DISEASES OF THE PUERPERAL PERIOD. By Joseph Kucher, M.D. Cloth. Three hundred and eleven pages. New York: J. H. Vail & Company, 1886.

The use of antiseptics in midwifery has not kept apace with their use in general surgery or in gynæcology. This, perhaps, is due more to the position which this branch occupies in the field of medicine and surgery, for in its practice midwifery is far from scientific. To advocate and defend the use of antiseptics, and to give methods to reach as near as possible the condition of asepsis during puerperal convalescence, is the main object of this work. Since it is proven by undisputed facts that puerperal fever and allied diseases incident to the puerperal state are due to septic poisons introduced from without by direct contact of the infecting matter with the lesions in the genital tract, the importance of using every means to prevent this infection becomes all apparent. When comparison is made, other unfavorable conditions become unimportant and insignificant, in contrast with the danger and dreadful results of infection. The author's experience has so impressed him with the great importance of asepsis, that he thinks a sign with the legend, "Look out for infectious matter!" should always be before the mental eyes of the obstetrician. The most common mistake and the most frequent source of disappointment and failure, is the supposition that any physician can exactly execute antiseptic precautions. This requires practice, and the most careful physician may make mistakes in the beginning. The finger nails, and cracks and furrows of the skin, do not receive sufficient attention.

Dr. Kucher took his first lessons in antiseptic midwifery in the Vienna lying-in hospital, where it was first conceived and practiced by Semmelweiss, and where its good fruits were in direct proportion, with the degree of exactitude with which his instructions were carried out. During four years service in this hospital, Dr. Kucher had the experience and accruing benefits afforded from forty thousand hospital confinements, one-third of these coming under his immediate observation. This experience has given him confidence and a firm belief in the premises which he lays down. He recommends no treatment which he has not tried and found reliable. He advocates no therapeutical measure which has not only been found useful in his own practice, but in that of other physicians, and in his practice his reliance is placed upon the accumulated results of his own experience, it being his "sheet anchor in the maelstrom of contradictory assertions."

Dr. Kucher has written this work for the practitioner; he has written it with all the force of an author who desires to carry his own hard convictions into the practices of his readers. "Upon no question in obstetrics have I such strong convictions, and convictions based on so large an experience, as upon the etiology of puerperal fever." After reading the work no one will doubt the sincerity of this declaration in the author's preface. This book can be read by every obstetrician with interest, and none can read it without profit.

THE SCIENCE AND ART OF MIDWIFERY. By William Thompson Lusk, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College; Consulting Physician to the Maternity Hospital; Visiting Physician to the Emergency Hospital; Gynæcologist to the Bellevue Hospital; Fellow of the American Gynæcological Society; Corresponding Fellow of the Obstetrical Societies of Edinburgh and London, etc., etc. New edition, revised and enlarged. With two hundred and twenty-six illustrations. 8mo: seven hundred and sixty-three pages. Cloth, $5.00; sheep, $6.00. New York: D. Appleton & Company, 1885.

Four years ago Professor Lusk received the thanks of the profession for his most valuable work, but in that short time many perfections have been made in obstetric practice, which have been regarded of such importance that a third edition has been prepared. In the preface of this edition, the author says: "It is with special gratification that I take this opportunity to draw attention to the triumph of the modern doctrines concerning the nature of puerperal fever, and to the wonderful results that have proceeded from the application of Mr. Lister's teachings to the hygiene of lying-in hospitals." We learn also that the work has been translated into Spanish, French and Italian. Probably no work published from the medical press of America, has received a more hearty welcome or more complimentary criticism. The foreign and American press alike reviewed it in the most flattering language. What more can be written in its praise when the leading critics of the world speak of it as follows: "Dr. Lusk's book is eminently viable." "This book bears evidence on every page of being the result of patient and laborious research and great personal experience, united and harmonized by the true critical spirit." "What Spiegelberg has done for Germany, Lusk, imitating him, but not copying him, has done for English readers." "Dr. Lusk's work is so comprehensive in design, and so elaborate in execution, that it must be recognized as having a status peculiarly its own among the text-books on midwifery in the English language." "This is undoubtedly the best book on the subject in the English language. It is written from a physiological stand-point, combined with an extended clinical knowledge." The author of a work that receives such commendation from co-workers and teachers of midwifery, will endeavor from a just and honest pride, to have it maintain its position, and the work before us is evidence that to the present this has been done. Aside from its many merits which have already been duly extolled, the work is written in a style that is clear and concise, and at the same time pleasing and captivating. To the student and to the practitioner, alike to both, it must prove invaluable.

A MANUAL OF AUSCULTATION AND PERCUSSION, EMBRACING THE PHYSICAL DIAGNOSIS OF DISEASES OF THE LUNGS AND HEART, AND OF THORACIC ANEURISM. By Austin Flint, M. D., L. L. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., etc. Fourth edition, thoroughly revised and enlarged. Illustrated with fourteen wood cuts. 12mo. two hundred and eighty pages. Cloth. Philadelphia: Lea Brothers & Company, 1885.

This work contains the subject matter of the lessons and lectures which this eminent writer and teacher gave for many years to private classes composed of medical students and practitioners. It considers "the destinctive characters of the different physical signs as determined, not by analogies, nor by deductions from physics, but by analysis and as based especially on variations in intensity, pitch, and quality of sounds." It impresses the fact that there is a significant relationship between physical signs and physical conditions; and that the study of the physical conditions and the signs of health is essentially necessary for success in the study of the physical diagnosis of disease.

The work has passed through four editions in the short period of five years. The present edition appears for the reason that in two years the former large edition has been exhausted. This fact shows with what favor the work is regarded by the members of the medical profession. In this fourth edition, some important modifications and considerable additions have been made. The improvements appear in the text, but more notably in the introduction of diagrammatic illustrations. The work is a valuable companion to any work on practice and has proven itself necessary in every physician's library.

BOOKS AND PAMPHLETS RECEIVED.

PUERPERAL PYREXIA. By Geo. P. Andrus, M. D, of Detroit, Michigan. Reprinted from the *American Lancet*, January, 1886.

THE TREATMENT OF VOMITING WITH LARGE DOSES OF OXALATE OF CERIUM. By W. R. Chittick, M. D., Detroit, Michigan. Reprinted from the *Detroit Lancet*, September, 1885.

TETANUS. Lecture delivered at the College of Physicians and Surgeons, Chicago. By N. Senn, M. D., Milwaukee, Wisconsin, Surgeon to Milwaukee Hospital; Professor of Principles and Practice of Surgery and Clinical Surgery. 1886.

MEDICAL DIGEST.

EFFECTS OF COCAINE ON THE CENTRAL NERVOUS SYSTEM.

At a recent meeting of the Chicago Medical Society, Dr. D. R. Brower read a paper on this subject, from which we take the following:

My first proposition is, that cocaine is as powerful for evil as it is for good.

Its Effect upon the Brain.—In small doses, that is, three or four drachms of the infusion, or one-half to one grain of the alkaloid, it is the most certain and agreeable of all cerebral stimulants. It increases the frequency of the pulse and respiration, and elevates the body temperature. It gives a sense of well-being, a freedom from care, and a pleasant mental exaltation. The first effect of the drug is upon the cerebrum, then upon the medulla oblongata, the sense of mental exhilaration preceding the stimulation of respiration and circulation. In small doses it also stimulates the spinal cord, producing a desire for muscular activity and increasing activity of reflexes.

This increased activity of the central nervous system is usually followed by a quiet, composed, self-satisfied condition of the mind and body that eventuates in sleep. These agreeable effects are accompanied with loss of appetite, frequently with nausea, constipation, and diminished activity of the kidneys, of the sexual functions, and of the skin. In large doses, two to ten grains of the alkaloid, there are produced tinnitus aurium, photophobia, illusions, hallucinations, great loquacity, and a marked tendency of the mind to exaggeration and misrepresentation. If continued for some time this dose produces perversion of the affections, a disturbance of the moral emotions, a tendency to quarrel with friends and former associates, and to form alliances with persons formerly regarded inferiors.

This state of the nervous system may become very like delirium tremens, with the same kind of muscular tremor and the same kind of horrible hallucinations. During this time the loss of appetite and diminished activities of assimilation result in extreme pallor of the face, dryness of skin, extreme constipation, very much diminished urinary excretion, loss of sexual function, and great emaciation.

Cocaine in the Alcohol and Opium Inebriates.—Dr. Lewis Bauer began with one-fifth of a grain, which the patient soon increased to ten grains by hypodermic injection, with the same disastrous result upon the nervous system as has been mentioned; but he expresses the opinion that cocaine inebriety was less objectionable than the alcoholic.

Dr. Erlenmyer gave it, in various doses, in two hundred and thirty-six cases of opium inebriety, and expresses sentiments that entirely agree with my own. He says that while cocaine does modify and mitigate the phenomena of opium abstinence, its effect is only transient and of brief duration; he regards it of trifling value as a substitute for morphine.

Dr. J. T. Whittaker reports, in an elaborate paper, the results from its hypodermic use in two cases of opium inebriety that were satisfactory. Dr. Palmer, of Louisville, Kentucky, who was one of the first to advise its use in such cases, continues to be an enthusiastic advocate of the drug.

My own experience is against its use in either of these inebrieties; it undoubtedly makes the withdrawal of either of these agents much easier for the patient, because its effects are so similar to opium and alcohol that he scarcely feels the need of either; but you place within his reach an agent much more rapidly disastrous and destructive to the nutrition of the cerebral convolutions; an agent that will soon sink him to a degradation much lower than is possible with either of the others.

Cocaine in Melancholia.—The best results yet obtained from the administration of the drug have been in conditions of mental depression. Dr. Jerome K. Bauduy relates a very extensive experience with the drug in melancholia. His method was to inject one grain of the muriate of cocaine, and he frequently witnessed the morose, silent, taciturn patient, a prey to the most profound grief or sadness, recover his normal self, begin to talk about his case and wonder how he could ever have experienced such gloomy ideas. He reports one case of suicidal melancholia which recovered in less than one month, and to whom he only gave five injections of cocaine. Dr. Alexander B. Shaw speaks with the same degree of positiveness of its value in the insanities with depression.

My own experience with cocaine in this form of insanity is in accord with Drs. Bauduy and Shaw. Although the bad effects of the drug upon the digestive and assimilative processes, and upon the secretions, have frequently disappointed me in its use, I have observed his valuable suggestion of giving the drug several hours before eating, in order to avoid the anorexia and nausea, but even with this precaution I have frequently found it impossible, while using it, to give that great abundance of food, systematic feeding, which, after all, is the most valuable therapeutic measure in the relief of melancholia.

I recall two cases of profound melancholia. One a physician, aged forty-five; an uncomplicated case, the result of excessive professional work in a large country practice. He received the cocaine in one-grain doses three times a day, with pil. hydrargyri, aloes, and strychnia. His recovery was rapid, and has continued for four months. A woman, aged forty-eight, laboring under melancholia, that seemed to have its origin in the fret and worry induced by a tumor of one of the mammary glands, under this combined treatment recovered rapidly.

The drug was administered in pill form, and probably because of its combination did not interfere with the free use of egg-nog and other concentrated food in large quantities.

I have now under treatment a case of melancholia in which I am using the drug with the atomizer, using about four grains a day on the nasal mucous membrane. The stimulating effects on the brain are manifested in a very few minutes after it is used. I am of the opinion that cocaine is the most valuable recent addition made to the therapeutics of melancholia, especially if its bad effects are guarded against in the way suggested.

Neurasthenia.—Dr. J. Leonard Corning calls cocaine "the remedy *par excellence.*"

My experience coincides with this, but I observe the same care in sustaining the digestive functions and stimulating the eliminations as stated before. Cocaine, as mentioned in the beginning of this paper, is as powerful for evil as for good, and it requires no special prophetic gift to say that more disastrous results will be experienced by the laity from its indiscriminate use, than have been known from either opium or alcohol. Indeed, its action upon some persons in moderate doses is alarming. Dr. Kinnicutt relates a case of poisoning from three and a third grains of the drug applied to the nasal mucous membrane. An alarming comatose condition followed, from which recovery took place in about three hours, under the liberal use of brandy, ammonia, and digitalis, with heat to the extremities and epigastrium.

Dr. T. H. Burchard gives an account of a case in which the hypodermic injection of four-fifths of a grain produced a sudden and complete loss of consciousness, and in which respiration stopped, and the radial pulse was scarcely perceptible. Artificial respiration, hypodermic injections of one-twelfth grain of atropia, and sinapisms to heart and extremities relieved the patient.

To sum up:

(1) Cocaine in small or moderate doses is a cerebral stimulant, but produces derangement of the digestive and assimilative functions, and diminishes the elimination of waste.

(2) The use of cocaine in the alcoholic and opium inebriates is not satisfactory; while it is a more or less perfect substitute, yet its use is attended with greater danger than alcohol or opium.

(3) The use of cocaine in mental depression, if we carefully guard against the depressing effects of the drug upon digestion and assimilation, will often give better results than any drug hitherto used.

(4) The use of cocaine in neurasthenia is a valuable addition to the treatment.

(5) The drug, if administered in large doses persistently,

causes a very marked deterioration of the central nervous system, producing a profound cerebral neurasthenia, and may produce such a mal-nutrition of the cerebrum as to develop insanity.

(6) Cocaine, occasionally, in doses heretofore regarded as small, produces alarming depression of the central nervous system.

THE ADVANTAGES OF THE PRINCIPLE OF DRY DRESSINGS IN ANTISEPTIC SURGERY.

In the Surgical Section of the Academy of Medicine in Ireland, Mr. Kendal Franks read a paper on this subject. The ground for discussion on the principle of antiseptic surgery had been shifted lately. That principle was almost universally recognized; the question now was as to the best methods of applying it. The ideal wound was one similiar to a subcutaneous wound kept at perfect rest. The mode in which Lister's method failed to attain the ideal was that by the necessity of frequent dressings, absolute rest could not be secured.

In order to get uniformly good results from the methods of dry dressings, the following points were insisted on:

(1) The most rigid method of rendering and preserving a wound aseptic must be observed.

(2) There must be absolute hæmostasis.

(3) Drainage tubes must be abolished, and in place of them a natural system of drainage substituted, by means of which no foreign bodies are left in the wound—a method due to Neuber, of Kiel.

(4) All cavities or spaces in the wound must be prevented by suturing together the deep tissues.

(5) The application of large quantities of highly absorbent materials, rendered antiseptic.

(6) The abolishing of all Mackintosh or other impermeable material from the dressings.

(7) The employment of a stable antiseptic in the dressings, instead of a volatile one like carbolic acid or eucalyptol. The antiseptic best suited for the purpose is corrosive sublimate. The dressings employed by Mr. Kendal Franks consisted of a piece of sero-sublimate gauze previously wetted with carbolic solution—one in forty—directly over the wound, and over the contiguous skin, so as to protect them from the action of the sublimate. Pads made of turf-moss containing one in four hundred of corrosive sublimate, or wood-wool, containing one in two hundred of the same antiseptic, made up in gauze bags, are applied over the deep dressing in sufficient quantity, and the whole firmly bandaged on with a calico bandage. These dressings can be left on for weeks.

Mr. Franks gave some examples to illustrate the results obtained, which included cases of radical cure of hernia, healed under one dressing in ten days; excision of right lobe of thyroid gland, soundly healed in ten days under a single dressing; removal of cancer of the breast, with clearing out of axilla, under one dressing in a fortnight; excision of the knee, perfectly healed in three weeks under one dressing; and excision of the hip healed in three weeks under three dressings. These cases were not exceptional. Almost every operation case had a similar history; the cases quoted were only cited as examples.

CARBOLIC ACID IN THE TREATMENT OF ACUTE EARACHE.

Carbolic acid is advocated by Dr. Hewetson in the *Lancet* as almost a specific for earache: He uses the glycerite of carbolic acid, which, in the British Pharmacopœia, is of the strength of one part to four. It gives almost immediate relief to pain; often averts threatened inflammation, and may be used with safety even where the membrana tympani has been perforated. It should be allowed to trickle slowly into the external meatus to enable the bubble of air to escape; otherwise it may not come in contact with the membrane. Weaker solutions he has found of much less value. The strength used is not strong enough to be caustic. In the pains of chronic otorrhœa the relief obtained was not so immediate, nor so permanent; it was, however, a useful mode of treatment, even in these cases.

EXPLORATIVE LAPAROTOMY.

In a paper read before the Kings County Medical Society by Dr. G. R. Fowler, these thoughts were advanced:

An attempt to analyze the methods of different operators, with a view of determining the conditions essential to success, discloses the fact of the existence of considerable diversity of opinion regarding these conditions. It is not incompatible with our inquiry into the advantages and merits of explorative laparotomy to consider the general subject of abdominal section, and whatever may influence, in the remotest degree, its success and failure, for the two are so indissolubly blended that whatever contributes to the well-being of the patient in the one case cannot but be of advantage in the other. In pursuing our study of the subject, it will not be possible, in the space of time allotted me, to enter deeply into all the peculiar methods ascribed to different operators, or to illustrate the different stand-points from which individual operators view the essentials of success, and the importance attached by each to any particular measure. We will consider, however, for a moment, the question of antisepsis in its relation to laparotomy in the hands of operators who achieve, in this operation, about the same general average of success year after year. In order to facilitate the inquiry, it will be convenient to divide these operators into three classes: First, those who may be said to maintain in and about the operation but a relative cleanliness; second, those who make a point of preserving the most rigid cleanliness—so rigid, indeed, as to be quite analogous to antisepsis itself; and, third, those who practice antisepsis more or less complete in detail. Why, then, it may be asked, is it, with such a difference in respect to a feature of the operation, which, judging from its importance now generally conceded in general surgery, would seem of the greatest importance here, that these operators meet with almost, if not quite, equally good results? It is not easy to formulate an answer to this question, but, in my judgment, we must look far beyond any one special feature of the operation as the key-stone to success, this probably holding good to a greater extent in abdominal section than in operations involving other parts of the body. And I further believe that what an operator loses by want of attention to one particular feature, he makes up for by attention to other details upon which he lays more stress. Keith, by his most patient and careful cleansing and closing of the abdominal cavity, leaves but little chance for a septic condition to occur afterward. His exceedingly delicate manipulation and treatment of every tissue involved in the operation are, likewise, features noted and commented upon by those who have been fortunate enough to witness his operations. He, perhaps, more than any other operator, can afford to forego the employment of antiseptic precautions in abdominal surgery. Lawson Tait, who uses neither antisepsis nor even absolute cleanliness in the sense that Hegar is said to, but who, on the other hand, operates with such admirable celerity, and whose every movement is magician-like in its quickness and certainty, challenging the admiration, by these and his many ingenious and time-saving devices, of those who have made a pilgrimage to the field of his labors; exposing, as he does, the peritoneal surfaces as little as possible, and never allowing, save in the direst need, a hand other than his own to touch the parts involved in the operation; surrounded by a staff of nurses of his own training, and he a most exacting disciplinarian; and possessed of a self-confidence born of an immense experience—what need has such an operator of antisepsis, when he has a record but little short of perfection? He simply dips his hands and instruments in water from the tap, dons an old blue-cloth blouse, which, from its appearance, looks as if it might have been worn by him at every operation since the occasion of his maiden effort in surgery. From the moment he takes the scalpel in his hand, he enjoins the most perfect silence on the part of those about him; this latter he insists upon, in order that nothing may distract his attention for a single moment from the work before him. Hegar, again, may be cited as an instance of those who pursue a most stringent course of cleanliness in the same line of work, and who, it is said, with his drilled assistants, rendered almost absolutely perfect in point of purity by bathing, and fresh, clean linen at each operation, and taking every possible precaution against infection, except the use of germicides, manages to bring enough other advantages to his aid to enable him to keep the mortality of abdominal surgery, in his hands, within very narrow limits. And, lastly, it cannot be for a moment doubted, in spite of the above facts, that antisepsis has a place in abdominal surgery as elsewhere; but it must be acknowledged that its influence has not been so decidedly felt there as in other fields. Nevertheless, there are a large number of surgeons who find it of advantage to employ germicides and antiseptics in abdominal surgery. It may be, perhaps, they do not possess the painstaking methods and delicate manipulation of a Keith, nor the magical dexterity and immense experience of a Lawson Tait, and may consider the iron regimen of a Hegar more difficult to follow than antisepsis itself. These surgeons are called upon, however, and needs must, upon occasion, perform operations involving the abdominal cavity; who. not wanting in ordinary dexterity and skill, yet not phenomenal in these attributes, still manage, by dint of care and a strict adherence to the principles of antiseptic surgery, to make as good showing as their more fortunately-placed and better-known brethren. I do not wish to be understood as suggesting that the germicide bath in which the instruments are placed can compensate for want of skill in the wielding thereof; that the spray of carbolic acid solution playing over the site of operation will justify rough manipulation; nor, that the results of gross carelessness and bungling manœuvres of an incompetent operator can be hidden away, never to be heard of again, beneath the folds of an elaborate gauze and Mackintosh dressing. Far from it. Success in the surgery of the abdomen, other things being equal, seems to consist in and depend upon carrying to definite lengths carefully-matured plans and purposes. Failure may result, not from a disregard for this, that, or the other special feature of the operative procedure, but from an absence of a sufficient number of redeeming or compensating circumstances to make up the sum-total constituting success.

In the study of the subject of explorative laparotomy, it will be convenient for us to divide the cases calling for its performance into four classes, as follows:

(1) Cases in which a diagnosis cannot be made without opening the abdomen and exposing the parts to the direct touch, or even, perhaps, to the sight of the surgeon, but in which further interference is thereby shown to be either impracticable or uncalled for.

(2) Cases in which a provisional diagnosis only can be

made, unaided by abdominal incision, and in which but slight additional risk is incurred by an immediate and radically curative procedure, based upon the knowledge thus gained.

(3) Cases in which a diagnosis has been made, but in which doubt exists as to the practicability of performing a radical operation; and cases in which the choice of the particular operation best adapted to the individual case must be decided upon after incision and exploration.

(4) Cases in which the patient's life is in imminent peril, and in which it becomes imperatively necessary to at once locate the lesion threatening life, and to be prepared to act promptly upon the knowledge gained by opening the abdominal cavity.—*New York Medical Journal.*

THE PHYSIOLOGICAL ACTION OF TOBACCO.

In the "Fiske Fund Prize Dissertation, Number XXXIV," entitled "The Physiological and Pathological Effects of the Use of Tobacco," recently published by Messrs. P. Blakiston, Son & Company, of Philadelphia, the author, Dr. Hobart Amory Hare, presents the facts and arguments that have led him to the following conclusions:

(1) Tobacco-smoking does not decrease the urine eliminated, but rather increases it.

(2) Tobacco does retard tissue-waste.

(3) Tobacco and its alkaloid cause convulsions in the primary stage of the poisoning, by depressing the reflex inhibitory centers in the cord.

(4) It causes the palsy of the second stage, by paralyzing (*a*) the motor nerve-trunks, (*b*) the motor tract of the spinal cord.

(5) The sensory nerves are not affected by the drug.

(6) Nicotine contracts the pupil, by stimulating the oculomotor and paralyzing the sympathetic, this action being peripheral.

(7) Nicotine primarily lowers the blood pressure and pulse-rate; (*a*) secondarily, increases pressure and rate; (*b*) thirdly, decreases pressure.

(8) The primary lowering of pressure and rate is due to pneumogastric stimulation, associated with vaso-motor dilatation.

(9) The secondary stage is due to vaso-motor constriction and pneumogastric palsy.

(10) The third stage is due to vaso-motor dilatation returning.

(11) Death in poisoning from this drug is due to failure of respiration, the action of the drug being centric.

(12) The blood-corpuscles are broken up and crenated by the action of the poison.

(13) In death from nicotine-poisoning, the blood shows changes in *spectra.*

(14) Death can be brought about by the cutaneous absorption of nicotine.

(15) Tobacco increases intestinal peristalsis in moderate amounts, and produces tetanoid intestinal spasms in poisonous doses.

(16) The liver seems to destroy the poison, although this destruction is participated in by any set of capillaries in other parts of the body.

(17) Tobacco-smoking increases the pulse-rate, and decreases arterial pressure.—*Therapeutic Gazette.*

MASSIVE DOSES OF DIGITALIS IN LOBAR PNEUMONIA.

In the hands of M. Petrescu, Professor of Therapeutics at Bucharest, the dosage of digitalis has been carried far beyond the limits formerly recognized. The disease under treatment was lobar pneumonia occurring in one lung or in both, in some cases uncomplicated, in others associated with pleurisy. Some of the cases do not seem to have been severe from the first; the majority, however, were so. They were taken in hand as a rule either on the day or on the second day of the disease. It is also to be noted that the patients were soldiers in hospital, and therefore presumably men of good physique.

The use of large doses of digitalis in pneumonia is not novel. M. Germain See has recommended that as large a quantity as seven grains of the leaves be administered per diem in such cases. Hirtz does not consider eleven to fifteen grains too much to employ during the same period, and gives the drug in large quantity (one hundred parts of sugared water), a tablespoonful of the mixture being taken hourly. M. Petrescu claims to have exceeded, without hurtful effects and with marked benefit to the patients, all former recorded measures. His material was selected from various drug stores, in order to avoid the risk of error dependent on the special qualities of any given sample, and his results are briefly stated as follows, namely:

(1) The duration of the whole attack is said to be shortened (four days to one week).

(2) Fever is strongly controlled and progressively diminished.

(3) Sphygmographic tracings show that the pulse is rapidly and decidedly slowed, and dicrotism disappears in great measure and finally altogether, by absorption of the primarily separate dicrotic wave in the descending slope of the main pulse wave. A regular action of the pulse is maintained, as is also the arterial tension from first to last, in apparently due proportion to the heart action and stage of disease. Respira-

tions diminish steadily and gradually in frequency. M. Petrescu accordingly maintains that the doses he employs represent the true therapeutic quantities of this drug in pneumonia; that only when so given can its antiphlogistic action be relied upon; and further that digitalis alone has been able to reduce the mortality from pneumonia to a minimum.—*Progres Medical.*

HYPNOTISM DURING PARTURITION.

In the *Wiener Medizinische Wochenschrift* (Number XLV), Dr. E, Pritzel, assistant to Professor Karl Braun, reports a case of childbirth during hypnotism, probably the first of the kind on record.

The patient, single, tweny-six years of age, was admitted to the obstetrical wards of Professor Braun in the eighth month of pregnancy. She had always menstruated regularly from her fourteenth year up to January of last year. Since then her health had been good, and she had been entirely free from the nervous manifestations so common during pregnancy.

Upon examination, it was found that she was readily thrown into a hypnotic state by holding a thermometer bulb before her eyes for a few moments. She became unconscious and insensible to all irritations, while her color, pulse and pupillary reactions remained unaffected. At the end of a quarter or half an hour, the patient was aroused by long and continued irritation, shaking the body, blowing upon the cornea, slapping the breast with cold, wet cloths, etc. After revival, she declared that she felt well after each experiment, but it was noticed that it was usually followed by a deep, but natural, sleep.

Labor set in October 30, and during the first stage she was restless and unmanageable. Cramps in the limbs and intensity of the pains during the second stage suggested a narcotic or the induction of artificial hypnotism. The latter expedient was adopted, and with entire success. She became unconscious and insensible. It was found that, instead of decreasing in force the uterine contractions became more energetic, and were aided by the abdominal muscles. While the patient was entirely insensible, it was still noticed that she bent the left forearm as if cramp were present, and there was considerable stiffness in the left leg. The right side of the body was unaffected. Between the pains she lay motionless, as if asleep. A well-developed female child was born, which cried lustily; the placenta was expelled, under the influence of abdominal pressure, in three-quarters of an hour. The patient was wakened by holding ammonia to her nose and shaking her, after unconsciousness lasting an hour and a quarter. The confinement was in every other respect strictly physiological. In two other cases from the same clinic the method was also successful, although to a less marked degree.—*Medical Times.*

THE ROLE OF COUNTER-IRRITATION IN MEDICINE.

Those physicians who have carefully studied the treatment of most of the acute and chronic inflammations to which flesh is heir, as it is revealed in the teachings and writings of the standard authorities, must have been strongly impressed with the stress laid upon the value of counter-irritation as a remedial agent. Though the old crone who finds relief for all her ailments in recourse to the ubiquitous mustard plaster, does not reason as learnedly about the derivative effect of counter-irritation as the practitioner, she appreciates its value equally with the latter. While the appliances for securing the effects of counter-irritation remained in a crude state as they did for many years, this method of treatment was considered most objectionable by the patients themselves, and physicians were very frequently loath to apply it, even in cases where they were convinced that it would be an efficient mode of treatment, on account of the scruples of their patients. Improvements have, however, been made in the methods of applying this valuable means of treatment, and the physician at the present time is able to prescribe counter-irritation, with the assurance that this mode of treatment can be carried out without the least objection on the part of the patient and, from a medical point of view, in a most efficient manner.

The manufacturing pharmacists, Parke, Davis & Company, have supplied a certain convenient and cleanly means of counter-irritation in their issue plasters, which offer a ready, mild, efficient, uniform and cleanly mode of interrupted or continuous counter-irritation, and which have met with the warm approval of all who have used them. These plasters are readily retained without a bandage, easily removed without pain to the patient and can be applied at will without difficulty. They constitute an invaluable aid in the treatment of neuralgia, sciatica, chronic effusions of the viscera, bronchitis, pleuritic adhesions and effusions, local consolidation of lung tissue, in pneumonia, pericardial effusion and inflammation of any serous membrane after this acute stage.

The attention that has been given of late years to improving therapeutical appliances of all descriptions, has resulted in enriching the armamentarium of the physician by many valuable therapeutic agents which enable the physician of the present day to practice his profession in accordance with ethical as well as scientific laws. We have no doubt that physicians will appreciate the advantages of issue plasters and will resort to them in all cases where it is desired speedily to secure the effects of counter-irritation.

We are informed that these plasters are put up by the manufacturers in boxes containing a dozen, with full directions for use.

ANODYNE COUNTER-IRRITATION.

Under this head Dr. Benjamin Ward Richardson, in the *Asclepiad*, says:

When what I called voltaic narcotism was on hand, I noticed that if by a strong counter-irritation the surface of the body, in any part, were rendered very vascular, the absorption of a narcotic applied to that surface caused a local insensibility much more intense than if the narcotic had been simply placed on the skin in its natural state. Upon this indeed rested the curious series of phenomena of local anæsthesia by which a considerable of surgical operations were painlessly performed. The fact has led me often since then to combine a narcotic with a counter-irritant as follows:

(1) Mustard, four tablespoonfuls; tincture of opium, two fluid drachms; glycerine, one tablespoonful; water heated to 100° Fahrenheit, sufficient to make a thick paste. To be applied on sponge or on linen in the usual way.

(2) Mustard, four tablespoonfuls; soda carbonate, half an ounce; Dover's powder, one drachm; glycerine, one tablespoonful; water heated, sufficient to make a poultice. This forms an alkaline as well as anodyne counter-irritation for lumbago and muscular pains.

(3) Cantharidine plaster, one drachm; extract of belladonna, one grain. To make an anodyne blister. This is useful for the blister at the back of the ear in cases of pain from subacute inflammation.

(4) The substance in the pharmacopœia called emplastrum calefaciens is a good medicine for anodyne counter-irritation. With it morphia, codia, and other alkaloids combine well, on addition of a little glycerine.

THERAPEUTIC PROGRESS.

Deoderized Iodoform.—Dr. Brunelli employs a very simple means. He mixes one part of finely pulverized camphor with three of iodoform, and claims that in this way the characteristic odor of the latter is completely masked.

Digitalis in Infantile Bronchitis.—Drs. Jacobi and Smith recommend digitalis as the best heart tonic which could be employed. Dr. Jacobi believes two or three large doses preferable to small doses frequently repeated. A child one year of age could take one grain of digitalis three times a day, as long as would be required.

On the Local Use of Cocaine.—Dr. J. Solis-Cohen calls attention to the following points: The application of cocaine to the pharynx of a hay fever patient produced as violent an attack of asthma as any the patient had ever experienced. The application to the larynx of a lady resulted in almost asphyxiating the patient. Inhalation of chloroform relaxed the spasm.

OPIUM IN INFANTILE DIARRHŒA.—At a recent discussion on infantile diarrhœa by the Glasgow Southern Medical Society, Dr. Duncan said that it required experience to give opiates to children, even in small doses; he preferred the liquid form on account of the equable diffusion of the opium, and he used the tincture, a drop for each year of the child's age. Even at that it had to be watched carefully.

CALOMEL IN CARDIAC DROPSY.—Dr. Jendrássic has found in cases of cardiac dropsy that calomel causes well marked diuresis, which dissipate the dropsy and œdema. The effect, "a sort of diabetes insipidus," comes on in twenty-four hours by giving one and a half grains of the drug three to five times a day. Salivation and sore mouth prevented by using a gargle of chlorate of potash from the first.

ICHTHYOL.—Dr. Lorenz recommends ichthyol in a variety of cases. In a thirty per cent. solution it relieves the severe itching of senile prurigo; for pruritus a weaker solution is used (a ten per cent). As an application to slowly granulating burns and ulcers, he has had excellent results; and internally, in doses of four tablespoonfuls of a one per cent. solution in the day, he has relieved the symptoms—vomiting, etc.—of catarrh of the stomach.

USE OF PYRIDINE IN ASTHMA.—Dr. Neff reports the use of this drug in twelve cases. Its excessive irritative action requires that it be used with care. The best method of administration is to pour one to two grams upon a saucer, placed in a small room with doors and windows closed. The patient inhales the vapors largely diluted with the air. The absorption is immediate, the pulse and respiration soon become slowed, easy and regular.

THE USE OF ANTIPYRINE DURING PREGNANCY.—Professor Chiara concludes from a use of antipyrine in cases of twelve pregnant women: (1) In therapeutic doses it has no particular oxytocic action. (2) Pregnancy, whether normal or pathological, does not modify its action. (3) It may be used with perfect safety as an antipyretic during pregnancy. (4) Like other antipyretics, it may tend to prevent abortion, an excessively high temperature being a frequent cause of that accident.

BENZOATE OF COCAINE.—Dr. A. Bignon considers the benzoate superior to all other salts of cocaine as a local anæsthetic. Benzoic acid, he says, is the natural signergist of cocaine. Since it is one of the products of the decomposition of the latter, but, when combined with it, increases its stability. Moreover, its antiseptic property is an advantage, and it is stated that the benzoate in solution has a decided odor of the coca leaf. Mention is made of the case of a patient with epithelioma of the tongue, who could neither eat, talk, nor sleep without using cocaine. The hydrochlorate only enabled him to sleep for an hour at a time, but the benzoate secured four hours of continuous sleep. The experiment was repeated many times and invariably with the same result. The author states that, where as an application of the neutral hydrochlorate always caused a painful sensation before anæsthesia was established, nothing of the sort occurred when the benzoate was used. The benzoate may be prepared extemporaneously in solution by using one part of benzoic acid to three parts of cocaine.

APONE: A NEW PREPARATION OF CAPSICUM.—Dr. V. Poulet gives the name of apone to a preparation made after the following formula:

℞.	Capsicum	℥vjss.
	Ammonia water	℥iij¼.
	Essence of thyme,	
	Chloral hydrate, āā	ʒijss.
	Alcohol (sixty per cent.)	oij

The capsicum is macerated for a month in the alcohol mixed with ammonia water. It is then expressed, the chloral and essence of thyme are added, and the product is to be kept in a well stoppered bottle. Stress is laid on the formation of a soapy substance by the combination of the ammonia with the capsicum, and so this change takes place slowly. Apone should be prepared long before it is to be used. It is mostly adapted for external use, pure or diluted with oil, and acts as an anodine revulsive. The author recommends it highly for muscular rheumatism, certain neuralgias, hysterics, sea sickness and inflammatory affections of mucous membranes. Internally the dose is from ten to twenty drops, in a little water, and half a glass of water or cold tea should be swallowed at once. The remedy has been used internally with success in the treatment of hæmorrhoids. The addition of a few drops to the drink is said to aid the system in bearing up under the influence of excessive solar heat.

FORMULÆ FOR PREPARATIONS CONTAINING LANOLIN.—Professor O. Liebreich, of Berlin, gives the following formulæ for compounds containing the new excipient, lanolin:

(1)	Silver nitrate	1 part.
	Lanolin	9 parts.

This makes rather a solid ointment, good to spread on lint

(2)	White lead	30 parts.
	Lard	10 parts.
	Lanolin	60 parts.
(3)	Lead plaster	50 parts.
	Olive-oil	20 parts.
	Lanolin	30 parts.

This salve appears solid, but becomes pliant when applied to the skin. When used for eczema, it should be heated until the water has evaporated.

(4)	Lead plaster, Lanolin,	Equal parts.

This is too solid for an ointment, but useful as a plaster.

(5)	White precipitate	10 parts.
	Lard	10 parts.
	Lanolin	80 parts.
(6)	[? Yellow] mercuric oxide	10 parts.
	Lanolin	90 parts.

When used as an eye salve, add thirty per cent. of fat.

(7)	Solution of lead subacetate	8 parts.
	Lard	10 parts.
	Lanolin	80 parts.
(8)	Zinc oxide	10 parts.
	Lard	10 parts.
	Lanolin	80 parts.
(9)	Red sulphide of mercury	10 parts.
	Lard	10 parts.
	Lanolin	80 parts.

(10) [This gives a formula (or two formulæ) for a mercurial ointment made with lanolin. There seems to be a typographical error, and we therefore omit it.]

(11)	Potassium iodide	20 parts.
	Water	10 parts.
	Lard	20 parts.
	Lanolin	150 parts.
(12)	Spermaceti	10 parts.
	Olive-oil	30 parts.
	Lanolin	40 parts.
	Rose-water	50 parts.
(13)	Iodoform	10 parts.
	Lard	10 parts.
	Lanolin	80 parts.
(14)	Chrysarobin	10 or 20 parts.
	Lard	10 parts.
	Lanolin	80 parts.
(15)	Tar	20 parts.
	Lanolin	80 parts.
(16)	Peruvian balsam	10 parts.
	Oil of turpentine	20 parrs.
	Lanolin	70 parts.
(17)	Boric acid	10 parts.
	Lard	20 parts.
	Lanolin	70 parts.

(18)	Carbolic acid	5 parts.
	Lard	5 parts.
	Lanolin	90 parts.
(19)	Salicylic acid	10 parts.
	Lard	20 parts.
	Lanolin	70 parts.
(20)	Napthol	5 parts.
	Lard	10 parts.
	Lanolin	85 parts.
(21)	Lanolin	50 parts.
	Cacao-butter	50 parts.
	Lard	5 parts.
	Oil of roses	3 grains.

This is for a pomade for the hair. [It will be seen that the formula calls for "grains" of oil of roses and for "parts" of each of the other ingredients; manifestly, therefore, it is quite uncertain what proportion of oil of roses should be added].

SPECIAL NOTICES.

JACOB S. PHILLIPS, M. D., of 211 East Fifty-eighth street, New York City, begs leave to recommend celerina as an excellent restorative after alcoholic excess; an aphrodisiac of exceptional merit, and an anti-spasmodic in hysterical manifestations and other functional nervous disorders.

F. E. THOROLD, M. D., Jamestown, Dakota: I have prescribed aletris cordial in cases of painful and irregular menstruation, and find it the best remedy I have ever tried for the above named troubles. I would earnestly recommend a trial of it to my professional brothers, being assured that they, like myself, would not be without it.

E. CHRISTIANSEN, M. D., of Grand Island, Nebraska, has used tongaline in some very obstinate cases of subacute and chronic articular rheumatism, with the most gratifying results. In one case of long standing and intense suffering, a combination of tongaline three ounces and fluid extract of manaca one-half ounce, teaspoonful ever hour, caused great relief after the third dose. He is much pleased with tongaline, and should not like to be without it in his practice.

DRS. MANNING AND ASHBY, editors of the *Maryland Medical Journal*, Baltimore, Maryland, write of Colden's liquid beef tonic as follows: This excellent preparation has become deservedly popular with the medical profession in the treatment of diseases where an agreeable article of diet and tonics are required. It is recommended in typhoid and malarial fevers, consumption, loss of appetite and debility induced by any cause, and it is tolerated when other forms of animal food are rejected. We invite those who have not used it to try it.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. MAY, 1886. NUMBER V.

ORIGINAL ARTICLES.

DIGESTION AND DYSPEPSIA.*

BY PAUL C. JENSEN, M. D., CHICAGO, ILLINOIS.

PHYSIOLOGICAL DIGESTION.

By eminent authorities, dyspepsia is regarded as a functional disease of the stomach, but the advanced knowledge of physiological digestion within the last decade has demonstrated that the stomach is held responsible only for a small part of the digestive process. The saliva, by virtue of its ferment, ptyalin, transforms starchy food into dextrin and glucose. It moistens the food; aids in the formation of a bolus, insalivation and deglution; while the alkaline reaction imparted to the food, acts as a stimulant to the gastric mucous membrane whose secretion is acid. The function of the gastric secretion is the digestion of albuminoids, the solution of the proteid and gelatiniferous envelopes of adipose tissue which slightly facilitates its emulsion, by the liberation of fat cells. All gelatiniferous tissues, gluten and fibro-cartilage, are peptonized by this secretion. The gastric juice dissolves such metals and salts as are soluble in dilute acid—(HCl). Gastric juice is without action upon carbohydrates, that is, inuline, starches, gums, sugars and fats. When the stomach contains very much mucus, the gastric secretion has the power of converting sucrose into glucose. This property is due to the presence in the mucus of a special ferment, analogous to, but quite distinct from, ptyalin of saliva. An excessive quantity of cane sugar, introduced into the stomach, causes a secretion of mucus, and hence provides for its own conversion (Hoppe-Seyler: *Virchow's Archiv*, X, 1856, page 144. "Foster's Physiology," page 246). The stomach, by its muscular contraction and rotary movement, aid in the reduction process, and thus, by the double influences of chemical and mechanical action, chymification is completed (acid peptone). Fats and starches, not undergoing any appreciable change in the stomach, pass with the chyme through the pyloric orifice, there it is brought in contact with the pyloric and duodenal secretion, the function of which is to neutralize the acidity of the gastric contents preparatory to intestinal digestion. In the duodenum the fatty, saccharine and starchy constituents of the meal are digested by the united action of bile, pancreatic secretion and succus entericus. All that portion of the food escaping gastric digestion is now digested and peptonized (alkali peptone).

---

*Read before the Chicago Medical Society, March 1, 1886.

FUNCTION OF BILE.—The bile, by virtue of its alkaline reaction and its bile salts, greatly aid the pancreatic secretion in its action upon food, and hastens the absorption of fats. Thudicum attributes the emulsionizing property of the bile to be largely due to the phosphate of soda (Na_3PO_4).

(1) Bile, then, emulsifies neutral fats and hastens their absorption through the lacteals, but it does not decompose neutral fats into glycerine and free fatty acid, as does the pancreatic secretion ("Landois & Sterling's Physiology," Volume I, page 365).

(2) Part of the bile is disposed of by absorption.

(3) Another portion of the bile is excreted.

(4) As fluid fats pass more readily through capillary tubes, when moistened with bile, it is concluded that when the pores of the absorbing wall of the small intestine are moistened, it facilitates absorption.

(5) Filtration of fats takes place through a membrane under less pressure when moistened with bile or bile salts, than when moistened with water or saline solutions.

(6) Bile, like a solution of soap, has a certain relation to aqueous solutions, as well as to fats. It permits diffusion to take place between these two fluids, as the membrane is moistened by both fluids (Wistinghausen).

(7) Fresh bile contains a diastatic ferment, which transforms starch into sugar (Nasse, Jacobson, Wittich). It also converts glycogen into sugar (Buffalini).

(8) Bile excites contractions of the muscular coats of the intestines, and thereby contributes to absorption.

(9) Bile moistens the intestinal walls as it is copiously excreted, and gives to the fæces the normal amount of water, so that they can easily be evacuated. Animals with biliary fistula, or persons with obstruction of the bile duct, are costive.

(10) Bile diminishes putrefactive decomposition of the intestinal contents, and thus it is an antiseptic (Valentine).

FUNCTION OF PANCREATIC SECRETION.—The intestinal digestion of albuminoids is completed by the trypsin of the pancreatic secretion. The starchy food is quickly and completely converted into dextrin and glucose by the diastatic ferment, amylopsin of the pancreatic secretion. The fatty constituents are emulsified, and neutral fats split up into glycerine and free fatty acids. The liberated fatty acids unite with alkalies, forming soaps, and are absorbed in this condition, while the emulsified fats are absorbed by the lacteals.

FUNCTION OF SUCCUS ENTERICUS.—In regard to the action of the intestinal secretion upon food, but little is positively known. The largest amount is secreted by Leiberkuhn's glands, which are abundantly distributed to every part of the mucous membrane of the small intestine, while the scanty duodenal secretion from Brunner's compound tubular glands causes solution of proteids at the normal body temperature (Krolow). It also exerts a diastatic action, converting maltose into glucose, but does not appear to act upon fats ("Landois & Sterling's Physiology," Volume I, page 361).

ACTION OF SUCCUS ENTERICUS.—It is comparatively weaker in diastatic power than saliva or pancreatic juice, and slightly exceeds that of tissues and fluids of the body generally. Fibrin is slowly peptonized, and albumen less easily affected by the intestinal secretion. Fats are only partly emulsionized, and afterwards decomposed (Schiff, Kulliker, Vella). According to Langley, the diastatic ferment of saliva is destroyed by the hydrochloric acid (HCl) of the gastric juice. Pepsin and rennet are decomposed by the alkaline salts of the pancreatic and intestinal secretions, while the diastatic peptic ferments of the pancreas disappear under the influence of acid fermentation in the large intestine. The digestive process is one of a mechanical disintegration and chemical solution facilitated by virtue of the normal enzymes present in the digestive secretions. This action extends to the upper portion of the jejunum. Here the fermentation processes are quite different from those caused by the action of distinct ferments (enzymes) (Frerichs, Hoppe-Seyler). The putrefactive changes are here connected with the presence of lower organisms (Nencki). The physiological action of the intestines, in addition to the formation of the final product, peptone, is essentially a process of fermentation and putrefactive decomposition brought about by mucus, air-bubbles, oxygen, and lower organisms, swallowed with the food, etc. Various unicellular organisms belonging to the group of fungi are implicated in the fermentation process. The intestinal fermentation of the carbohydrate residue yields sugar, lactic and carbonic acids (Ludwig, Roberts). The neural fats not emulsified or saponified are decomposed into fatty, rancid acids, by the bacteroid ferments (zymophites) ("Landois & Sterling's Physiology," Volume I, page 335). The products of fatty decomposition taking place within the intestines are numerous: as glycerine $C_3H_5(HO)_3$, a triatonic alcohol the base of neutral fats, is capable of undergoing several distinct fermentations, according to the fungus which acts upon it resulting in the following product, namely, (H), (CO_2), succinic acid ($H_2C_4H_4O_4$), lactic acid H ($C_3H_5O_3$), glycerinic acid ($C_3H_6O_4$), malic acid ($H_2C_4H_4O_5$), tartaric acid H_2 ($C_4H_4O_6$), citric acid H_3 ($C_6H_5O_7$), caproic acid H ($C_6H_{11}O_2$), butyric acid H ($C_4H_7O_2$), and and ascetic acid H ($C_2H_3O_2$) (Fitz). It is in the proteids, under normal conditions, that the greatest decomposition is produced. Within the large intestine the fermentative and putrefactive changes are more prominent than the digestive processes proper, as only a small quantity of intestinal secretion is found in it (Kuhne). The absorbing function of the large intestine is consequently greater than its secretory function, as at the commencement of the colon its contents is thin and liquid, while as it approaches the rectum, it becomes semi-solid or solid. In some instances toxic substances are absorbed more rapidly from the large intestine than from the stomach (Savory). Example: strychnine.

The decomposition of food substances, especially proteids, in the small intestine, is principally fermentative in character, while in the large intestine, the changes are more profoundly that of putrefactive decomposition, resulting in the development of the following products, namely: leucin, tyrosin, valerianic, amido-caproic, asparagic, and glutamic acids, hypoxanthin, carbonic acid and the hydrogen compounds of nitrogen, phophorus and sulphur (NH_3) (PH_3) (SH_2); also the indol compounds, skatol and excretin, which are constant human fæcal substances, and related to cholesterine (Marcet, Hoppe-Seyler, Breslau, Cohn, Pasteur, Kuhne, Brieger, Frerichs, Cl. Bernard, Nencki, Hufner). It is therefore observed that indigestion may occur in various parts of the alimentary canal aside from the stomach; and that an almost unlimited list of causes may exert potent influences in producing disorders of digestion. For instance:—structural disease, or functional derangement of the stomach, liver, pancreas, duodenum, gall-bladder, and small intestines. Among the structural lesions may be mentioned cancer, malignant and benign tumors, chronic hepatitis (Dr. E. A. Frimont: *Medical and Surgical Reporter*, January 16, 1886), inflammations, cicatrical contraction, dilatation of the stomach from stenosis at the pylorus, gall-stones, and among the functional conditions, atony, anæmia, toxæmia, and various reflex causes, co-operate to produce dyspepsia. Pathological alterations in the chemical composition of the various secretions may occur, either excessive or deficient in quantity, with a reduction in quality, or possibly oppressed, as from pressure of tumors upon or an internal obstruction of secretory duct. With this physiological preface of the digestive act, I refer to dyspepsia or indigestion as acute or chronic, hereditary or aquired, primary or secondary, structural or functional, symptomatic, neurosal, reflex, cardiac, toxæmic, or as an intercurrent affection.

ETIOLOGY.

PREDISPOSING CAUSES.—Of these there may be mentioned hereditary transmission, old age, bad hygiene, miasmatic influences, irregularities in habits, sedentary life, want of physical exercise, depressed life conditions generally,—as from hæmorrhages (Bartholow), leucorrhœa (Courty, Bartholow), exhausting discharges and profuse suppuration, etc. ("The Uterus, Ovary and Fallopian Tubes:" Courty, page 579), neurotic temperament, hysteria, pregnancy, ovarian disease, and various chronic pathological condition of the uterus and cervix uteri, —as lacerations, congestions and chronic inflammations (including endometritis, metritis, perimetritis, cellulitis, and cervicitis), fissures, ulceration, and polypi (Courty, page 674). Also various abnormal conditions of the Fallopian tubes (salpingitis and pyosalpingitis), and stenosis from chronic inflammation (uterine and peri-uterine) (Courty, page 542). Ovaritis very often causes disturbance of the digestive function (Courty, page 514). The various malpositions and uterine displacements,—as flexions, and versions with their varieties (anterior, lateral, and posterior), are productive in deranging digestive function (J. Mathews Duncan. Courty, page 486). Subinvolution, hypertbrophy and prolapsus uteri, are sometimes causative of this affection (Courty, page 611). A large number of pathological conditions of the rectum contribute as an influential factor in the etiology of this disease, as illustrated by hæmorrhoids, fissures, ulceration, polypi, stenosis, stricture and cancer. Profound constipation is a common cause of dyspepsia. Tight lacing, by interfering with circulation and displacing the viscera, may produce portal congestion, constipation and dyspepsia. Direct disease or perverted function of the ganglionic nervous system, especially that portion of the trisplanchnics giving origin to the solar plexus (inasmuch as the stomach, liver, and spleen, receive innervation from this source, through their respective gastric, hepatic and spleenic branches), may act as a predisposing cause. Irritation of the splanchnics in animals arrests the movement of the intestine (Hermann. Ross: "Diseases of the Nervous System," Volume I, page 682). Reflex causes are abundantly prolific in causing dyspepsia. Diseases of important organs, as brain, heart, lungs, and uterus, by virtue of their intimate connection with the sympathetic nervous system may act as predisposing causes in the production of secondary indigestion. Emotional influences,—sudden fright, bad news,—irritation of certain parts of the brain is said to cause ecchymosis, infiltration and ulceration of the stomach (Bartholow). Extensive severe external burns over chest and abdomen sometimes causes ulceration of the duodenum (Bartholow). Neurastheniæ, or an exhausted nervous system, as observed in connection with chronic disease, as from any drain upon the system, is a common cause of dyspepsia (see Beard: "Sexual Neurasthenia," page 47–48). Chronic phthisis is also sufficiently often accompanied by indigestion to be recognized as a causative factor (H. C. Moir).

Exciting Causes.—Among the exciting causes of primary and secondary indigestion may be mentioned errors in diet, swallowing too hot or too cold liquids, overfeeding, extreme mental or physical exertion just after the meal, condiments, irritants, corrosive poisons, and tobacco, has a toxic influence upon the digestive and nervous system, which greatly favors dyspepsia (William Aitkin), and many persons suffer quite severely after smoking a few cigars or even one (see "Encyclopædic Index of Medicine and Surgery:" Bermingham, page 220). Alcoholic indulgence is a common cause of gastritis, and the ordinary alcoholic beverages is by far too frequently an influential factor in the etiology of gastritis, hepatitis, and dyspepsia. Atmospheric influences,—as hot days and cold nights,—emotional influences, sympathetic relations with other organs in a morbid state may be an exciting cause and explained by the phenomena of reflex action; for example, nausea and vomiting which sometimes attends irritation of the brain, lungs, liver and uterus (Bermingham). Eating hurriedly, and consequently imperfect insalivation, dental caries (or decayed teeth) resulting in imperfect mastication and deficient disintegration, the irritation of sensative nerve endings in dental cavities, by decomposition products, may reflexly disturb the gastric function. The swallowing of products resulting from organic dental decomposition act as exciters in producing fermentation in the stomach, and hence indigestion. Imperfect solvent action from faulty salivary, gastric, biliary or pancreatic secretion is a frequent exciting cause. An abnormal quantity of mucus in the stomach acts as a cause by promoting fermentation and retarding normal gastric secretion. Excessive dilution of the gastric juice, by drinking with meal to excess, which also prevents proper insalivation of the food. Indigestion may occur from hypersecretion of gastric juice due to reflex action with reduction in quantity of the secretion (deficiency in ferment and acid); or from deficiency in the gastric secretion, as in anæmia, atony of the muscular coat of the stomach, and the atrophy subsequent upon chronic inflammation. The mucus present in gastritis causing fermentation with development of acid, bitter or gaseous eructations (belching), or pyrosis, a watery eructation may occur. Excessive acidity may exist with hypersecretion from irritation and reflex action as one cause or from deficient gastric secretion of acid and subsequent fermentation, developing lactic, butyric and rancid fatty acids and various hydrogen compounds (PH_3) (SH_2) as another cause. As a result of such fermentation hyperæsthesia and gastralgia not unfrequently occur, which is essentially an abnormal sensative and painful condition in the sensory nerves of the gastric mucous membrane. When structural disease is present as a cause of dyspepsia, such as gastritis, atrophy subsequent upon chronic inflammation, ulcer, cancer, stenosis, dilatation, etc., the dyspepsia is secondary or symptomatic of the structural disease. The removal of the cause will correct function and cure the dyspepsia.

SYMPTOMATOLOGY.

Pain is an indication of one of the following conditions:

(1) Presence of mechanical irritants or corrosive poisons.

(2) Neurosis or perverted innervation.

(3) Structural disease, involving tunics, mucous membrane and glandular apparatus (Hall: "Differential Diagnosis").

(4) Pain may also indicate perverted secretion, as in acidity from deficient secretion with subsequent fermentation or from hypersecretion due to reflex causes.

(5) Pain after food (in absence of structural disease), indicates deficiency of gastric juice, while flatulance suggests asthenia of the muscular coat of the stomach (Leared, Fothergill). In other words, pain indicates defective solvent power, requiring pepsin and acid, while flatulance points to inefficient rotatory power of disintegration, calling for strychnia. Pain between the shoulders is a common symptom of dyspepsia. When the pain is nearest the left shoulder it points to stomach derangement while if nearer the right shoulder, the liver is oftenest at fault, providing other affections contributary to pain be excluded, such as myalgia, neuralgia, rheumatism, and oxaluria. In acute stomachic indigestion (gastritis and ulcer), pain and vomiting usually occur quickly after eating, while in cancer the pain is more often delayed a couple of hours after meals, owing to the greater frequency of cancer at the pyloric portion of the stomach. Pain shortly after taking food indicates gastric disturbance; when occurring two or three hours after eating the pylorus or duodenum is probably involved. When no vomiting occurs, there is usually present no distinct lesion and is then indicative of a functional derangement. When pain is associated with vomiting the disturbance of the digestive act is unusually great. As vomiting is a symptom of many diseases, dependent upon different causes, care should be taken in its differentiation and correct interpretation. Vomiting occurs suddenly and without nausea from cerebral causes. It occurs in the morning in connection with pregnancy, drinking, and bronchial affections. It is symptomatic of ovarian irritation and ovaritis, uterine irritation, orchitis, and a sudden blow on a testicle has caused vomiting. Calculi in the ureters or in

the ductus communis choledochus are influential factors in causing vomiting. It occurs and is symptomatic in intussusception, hernia, and intestinal obstruction from any cause. It results directly from disease of the stomach, as in gastritis, ulcer, cancer, and in dilatation of the stomach, and vomiting is symptomatic in many febrile conditions.

GASTRITIS, ACUTE AND CHRONIC.

ACUTE GASTRITIS is pronounced by all authors to be exceedingly rare, save as the result of irritant poisons. The most prominent symptoms are the following: A coated tongue with angry red edges, anorexia, thirst—especially longing for sour drinks, epigastric burning pain extending to the left hypochondrium, gaseous eructations (belching) of acid fluids from decomposition as (H_2S) (CO_2) lactic, butyric, and fatty rancid acids; perverted taste, and nausea and vomiting. In severe cases diarrhœa and general associate febrile disturbance. The pain and vomiting come on shortly after taking food, but not immediately. The ejecta exhibit but traces of the digestive act. The food is wrapped over with tenaceous ropy mucus, and perfect relief is not obtained by vomiting, but a sensation of soreness remains. The mucus poured out at night in cases of gastritis often excite morning vomiting. In chronic gastritis the symptoms are less intense, but more persistent. The pathology is often so slight as to escape detection. According to Orth there is usually hyperæmia of the mucous membrane, with a resultant hypertrophy of the adjacent connective tissue. There is a considerable quantity of tenaceous glairy mucus of a semi-transparent or grayish color firmly adherent to the mucous membrane (Orth). The mucous glands are prominent in consequence of cellular hypertrophy. In chronic gastritis the glands undergo atrophic changes because of the pressure produced by the contracting surrounding connective tissue. The mucous membrane may be softened or indurated as a result of interstitial inflammation. The proper function of the gastric glands is much deranged by pathological changes subsequent upon chronic inflammation. Instead of the physiological secretion an alkaline sero-mucous fluid is poured out, possessing no digestive power, but does exercise an influence in exciting fermentation and decomposition.

Treatment.—Simple cases of gastritis (acute) need principally regulation in diet, abstinence and quiet. If irritating ingesta has been consumed an emetic is indicated. If that condition exists as expressed by the term biliousness, namely, a furred tongue, foul breath and constipation, an initial dose, of podophyllin, ipecac, euonymin, iridin, or mass hydrargyrum, may be given, to be followed by saline laxatives the following morning. To allay the irritability of the gastric mucous membrane in gastritis, one-twentieth grain of morphine with one-twelfth grain of calomel is found useful (Bartholow). Ice held in the mouth, and a small lump swallowed occasionally is very beneficial. Subnitrate of bismuth (from five to ten grains) doses are often useful. Lime water and cream in combination is very efficient in its action. A mixture of equal parts of phenic acid and tincture iodine, of which one drop may be taken every few hours, well diluted, has proven a most valuable remedy to arrest fermentation and check vomiting. Sir Wm. Gull, of London, England, admires the following as a gastric sedative:

℞.	Subnitrate of bismuth....................	ʒij.
	Dilute nitric acid..............................	fʒj.
	Dilute hydrocyanic acid..................	gtts. xxxvj.
	Acacia mucilage...............................	℥j.
	Mint water, ad q. s..........................	℥vj.

M. ft. One tablespoonful every four hours.

After the acute inflammatory symptoms have subsided, tincture nux vomica and dilute nitro-hydrochloric acid with wine of pepsin are most valuable to restore the appetite and complete digestion.

Toxic Gastritis.—The first essential in the treatment of this affection is to remove the irritating contents of the stomach. If it be a corrosive mineral acid the administration of dilute alkalies, lime water, cream, or soap should be given at once. Should the toxic substance be a caustic alkali, dilute mineral or vegetable acids should be promptly administered, as acetic H ($C_2H_3O_2$), citric H_3 ($C_6H_5O_7$), vinegar or phosphoric acid (H_3PO_4), lemonade, demulcents and sedatives—as mucilage, fixed oils, white of eggs, milk, cream, and subsequently such sedatives as bismuth, morphine, and minute doses of calomel (one-twentieth to one-twelfth grain) with sugar and acacia. Hydrocyanic acid dilute with bismuth and carbolic acid is an excellent sedative. Should the gastritis be enduced by poisonous doses of arsenic, dialysed iron, ferric hydrate, etc., is indicated. If from antimony, vegetable astringents—as tannic and gallic acids, infusion quercus. For mineral poisons (including Hg, Cu and Sr), astringent vegetable infusions, albumen and mucilaginous substances should be promptly administered. The stomach contents evacuated and lime water or other sedatives given according to the indications. In severe cases death may result, or extreme disorganization, stenosis and œsophagal stricture may occur. The after treatment consists of means to restore tone and normal function of the organ.

Chronic Gastritis.—Regulation of diet is of primary importance in all chronic gastric diseases. The adoption of regular habits, prohibition and removal of etiological influences, and total abstinance from alcoholics. Gastric sedatives are essential to quiet irritability, and saline laxatives indicated to secure depletion of the portal system and elimination of the intestinal contents. In extreme and protracted cases irrigation of the stomach with hot water exerts a highly beneficial influence.

Such diet as starches, sugars and fats, which in presence of mucus is capable of undergoing stomachic fermentation, should be interdicted. Food must be fluid and utterly free from particles capable of forming a bolus to be enveloped in a coating of gastric mucus, and the substitution of light and easily digested aliment resorted to, as albuminoids, oysters, milk, eggs, cream and lime water, beef tea, chicken broth, etc. In the medical treatment sulphate of copper pill and opium is often useful, given sometime before food. Compound kino powder (Fothergill) is also excellent, and hydrastis has been highly recommended by several correspondents in the *Lancet*, as a remedy of great utility in gastritis and dyspepsia (*Medical and Surgical Reporter*, January 23, 1886, page 128). In the medical treatment of this affection arsenic retains the highest therapeutic rank. Oxide of silver is assigned a high position in the treatment of this malady (Bartholow). In excessive acidity of the stomach the administration of acids before meals act admirably by checking gastric secretion upon the principle that an acid checks an acid osmotic flow, but stimulates those secretions of an opposite chemical reaction (alkali-secreting surface). Alkalies in like manner, check secretions of an alkaline reaction, but stimulates an osmotic flow in those secretions possessing an opposite chemical or acid reaction. Mineral acids given after meals possess the power of checking acidity, due to fermentation (Ringer, Bartholow, Brunton, Headland, Farquharson). Alkalies have seldom in my experience proved beneficial in this affection, except in cases where a catarrhal inflammation of the bile duct co-existed with fermentation of starchy and saccharine foods. In such cases phosphate of soda acts most efficient. When acid is deficient in quantity, alkali in small doses before meals acts charmingly by stimulating the acid gastric secretion. In a large number of cases in which diminution in gastric secretion is a prominent symptom, atony or asthenia of the muscular gastric tunics also co-exist. The following combination has proven serviceable:

℞.	Extract nux vomica......................	gr. ¼.
	Subnitrate bismuth......................	grs. iij.
	Bicarbonate of soda..................	gr. j.
	Capsicum....................................	gr. 1-10.

M. ft. Capsule number one. Sig. One before meals, t. i. d.

The administration of a podophyllin pill (one-fourth to one-half grain) at night acts efficiently as a mild laxative, in virtue of its stimulant action upon the liver. The same may be said of ipecac and calomel, when in combination, one-half grain of each. If constipation exist, it must be corrected or the treatment of the gastric trouble is a failure.

GASTRIC ULCER.

As gastric ulcer is a solution of continuity of the mucous membrane, so the most important factor in its pathogeny is the mechanical arrest of the circulation at the point where the ulcer forms (thrombosis embolism). Atheroma, endarteritis, and the debris of fatty degeneration, due to habitual use of alcoholics, may arrest the blood stream in a nutritious artery, the acid gastric juice digesting the albuminoid mucous membrane deprived of its blood supply, thus leaving an ulcer. Lowered life conditions, as anæmia, amenorrhœa, chlorosis, tuberculosis, prolonged lactation and lacerated cervix uteri, are etiological factors, as in these states a necrotic process is readily induced. Book-keepers, sewing girls, and persons who bend over and compress their stomach, are subject to gastric ulcer.

Symptomatology.—The leading symptoms are pain, indigestion, vomiting and hæmatemesis. The pain and vomiting occur immediately after food, vomiting giving complete relief to pain. The vomited matter gives no trace of the digestive act; there is absence of mucus, and occasionally hæmatemesis. In practice, the diagnosis of gastric ulcer is often difficult. In a paper read before the Medical Society of London, Dr. Stephen Mackinzie, reports the history of various cases, examplifying the complete symptomatic picture of gastric ulcer, with failure to discover any ulcer at the necropsy. Patients suffering from apepsia nervosa might conduct themselves in every respect like one suffering from genuine gastric ulcer (Dr. Steven Mackinzie: *Medical and Surgical Reporter*, January 16, 1886). Gastric ulcer is most frequent in persons from fifteen to thirty years of age, but is present in proportionately greater numbers (Bartholow) after thirty-five years, because it is essentially a chronic malady.

Treatment.—The treatment resolves itself into prophylactic and curative. If any cause can be ascertained as being influential in its production it should be promptly removed. The administration of an opiate and astringent an hour before meal lessens the pain produced by movement of the stomach, and diminishes the tendency to vomit. The food should consist of predigested albuminoids, given with an alkali to guard it through the stomach. The alkaline mineral waters serve a good purpose as a sedative. The ulcer should be kept clean and acidity diminished, as failure to accomplish this retards the healing process. The medicinal remedies which are most serviceable in the treatment of this malady are arsenic in small doses, oxide of silver in one-half grain doses, bismuth in ten grain doses three times per day, irrigation with boracic acid solution, twice daily is often serviceable:

℞.	Boracic acid	ʒss.
	Carbolic acid	grs. v.
	Tincture of opium.	gtts. xx.
	Water	oj.

ATONIC DYSPEPSIA.

This form of indigestion is due to a debilitated or depressed condition of the stomach; it is very often inherited and occurs most frequently in advanced life. It is a symptom in depressed states of the system generally, as seen in connection with chronic lacerations of the cervix uteri. It occurs from frequent recurring and debilitating hæmorrhages. Chronic malignant diseases remote from the stomach exercise a causative influence in its production. But the less remote and most influential factors are excessive alimentation and active mental and physical exercise immediately after eating. It is also produced by all those influences included under the term bad hygiene, sedentary occupation, irregularity in habits, etc. This form of dyspepsia, when not associated with structural disease, presents the following symptoms: First, a sensation of epigastric weight and uneasiness after eating, but the most prominent symptom is the formation of an acrid acid in the stomach, due to fermentative decomposition. These fermentation changes occur when the digestive process is quite far advanced. The uncomfortable sensation produced by the presence of the acrid acids have been termed cardialgia, gastralgia, or heartburn. There may be eructations of fluid into the fauces, of a bitter, acid, or alkaline character (pyrosis); or regurgitation of food may take place, imparting a sweetish or sour taste, due to atony of the muscular coat of the stomach, and arrested digestion. Gaseous eructations (belching) is of frequent occurrence, transmitting the characteristic flavor of the articles eaten: this is especially true of highly flavored articles. Flatulency or gaseous distention of the stomach may cause cardiac palpitation, by transmitting pressure from the stomach through the diaphragm. The appetite is generally feeble and a disinclination exists for all varieties of food. The tongue is enlarged, pale, anæmic, and flabby, and often presents indentations of the teeth upon its borders. The condition of the bowels is usually that of constipation. The skin is of a pale, sallow color, moist, clammy, and cold from insufficient capillary circulation. The extremities are cold, and patients therefore do not sleep well nights. There is a tendency to drowsiness after meals. The mental condition is that of inaptitude, despondency and irritability of temper, a condition co-existing in many depressed conditions.

Treatment.—Regulation of diet, uniformity in habit, regular and necessary amount of sleep, cleanliness, irrigation of the stomach with warm water, and drinking warm water in the morning holding in solution a saline laxative, serves an excellent purpose in washing out the mucous membrane, and stimulating its function. Constipation, if present, must be corrected, or failure to relieve the dyspepsia is certain. One of the essentials in treatment of dyspepsia is to keep the liver in normal functional activity, as it not only elaborates the products of gastro-intestinal digestion (of proteids) but it is the furnace in which the albuminoid waste is burnt or oxidized (Fothergill).

The following has served me satisfactorily as a gastric tonic and liver stimulant:

℞. Pulverized ipecacuanhæ	gr. ss.
Podophyllin	gr. 1-12.
Extract nux vomica	gr. $\frac{1}{8}$.
Capsicum	gr. $\frac{1}{6}$.

M. ft. Pill number one. Sig. Take t. i. d. before meals.—Jensen.

The internal administration of nitro-hydrochloric acid in wine of pepsin after meals, aids digestion of aluuminoids, completes oxidation, and exerts a special stimulating influence upon the liver. Professor Rutherford, of Edinburgh, who investigated the action of drugs upon the liver, found ipecac, iridin, euonymin, and podophyllin, as vegetables, and the sulphate of soda as a saline laxative, to be liver stimulants. Podophyllin is highly recommended by Ringer in the biliousness associated with dark stools, while if the evacuation is clay-colored mercurials are indicated.

One of the conditions resulting from dyspepsia, and consequent upon deficient oxidation of the food constituents, and from imperfect transformation or metabolism is the condition known as OXALURIA. The symptoms directing attention to oxaluria is a dull cutting or lancinating pain in the lumbar region which may be mistaken for lumbago, myalgia, or rheumatism. The despondency, melancholia, etc., so intimately associated with disorders of the liver usually co-exist with oxaluria and lithiasis. The detection of the dum-bell, or octohedral crystals of calcic oxalate in the urine by means of the microscope, insoluble in $HC_2H_3O_2$, but soluble in HCL, in connection with lumbar pains, melancholia, and frequent urination, and the ready response to nitro-hydrochloric acid treatment, differentiates oxaluria from sciatica, myalgia, lumbago, and rheumatism, etc.

In the *Northwestern Lancet*, January 15, 1883, is recorded by Dr. Jensen, an article on "The Physiological and Pathological Importance of Uric Acid and Urates in Urinary Deposits." The urines examined were obtained from cases of dyspepsia, measles, and bronchitis. In the dyspeptic cases the urine was found subnormal in quantity, one thousand to twelve hundred cubic centimeters for the twenty-four hours; specific gravity increased from 1020 to 1026. A deposit of uric acid urates and a few oxalates. The color of the deposit ranged from white to crimson. At times slight phosphatic deposit existed with the oxalates and urates. Urea was deficient in quantity, because of the unoxidized uric acid and urates which under normal conditions form urea. This illustrates that in dyspeptic derangements there is incomplete oxidation, imperfect assimilation, deficient metabolism, with retarded elimination, resulting in copræmia and blood contamination, the sum total of which, often induce a condition of extreme debility.

In this disorder, the regulation of diet is of the utmost importance. Predigested albuminoids, given often and in small quantities, and as rapid as the stomach resumes its function to increase the consumption of nutritious but easily digested articles of diet, is a necessary requirement. Stomachic tonics, with minute doses of alkali, and the lighter preparations of iron, should be given in combination (twenty minutes) shortly before the meal. The liver and bowels should be functionally operative, and the tongue clean, or iron is contra-indicated.

In these cases anæmia is usually associated with a debilitated muscular tunic and feeble digestion, acid eructations after meals, flatulency and various uncomfortable sensations. The rational treatment suggests iron for the anæmia; extract of nux vomica or extract of gentian, as a tonic to a debilitated muscular tunic; carbonate of ammonia or carbonate of soda in minute quantity, to stimulate its chemical opposite, an acid flow of gastric juice; and capsicum, or black pepper, to stimulate gastric vascularity, so necessary to the performance of physiological function. Should fermentation persist, the administration after meals of nitro-hydrochloric acid in wine of pepsin, checks the fermentation, completes digestion, increases oxidation or proper transformation of the food constituents, and for that reason converts the kidney and bladder irritants, uric acid and urates, into urea; oxalates into carbonic acid and carbonates; and taurine into sulphates. The latter compounds being the final products of oxidation set up no irritation in the course of their elimination. I have seen patients with frequent and painful micturation due to an irritating urine get almost immediate and permanent relief from the internal administration of nitro-hydrochloric acid after meals.

TOXÆMIC DYSPEPSIA.

Then there are the various reduced conditions of the blood from retention in it of excrementitious products due to faulty elimination, as copræmia, chronic retention of fæcal matter, giving a very peculiar earthy taint to the skin and an offensive odor to the breath. This condition usually exists in women with profound constipation. In connection with such cases, a toxæmic dyspepsia is not unfrequent. I have observed several cases of this character presenting the symptoms belonging to the atonic type of dyspepsia.

Treatment.—Unless the constipation be removed, nothing is accomplished by treating this affection. If the patient leads a sedentary life, the substitution of outdoor exercise exerts a beneficial influence. If the condition be that of debility from overwork, rest and tonics in conjunction with outdoor recreation accomplish much good in connection with proper medical treatment. Each case has its own therapeutic indications, must be treated upon its own merit, and symptoms met as they occur. Neuralgia, gouty, or rheumatic symptoms sometimes occur in connection with dyspeptic derangements, deficient oxidation of food constituents, and blood deterioration generally result. Dr. Murchison describes a functional disease of the liver in which there is an excess of lithic acid in the blood (lithiasis). Dr. Austin Flint, produced the term uricæmia for a similar condition. Dr. Murchison's position is that gout is simply the result of lithæmia dependent upon the inability of the liver to completely transform the crude albuminoids into the final products of oxidation.

NERVOUS DYSPEPSIA.

Neurasthenic dyspepsia is a peculiar form of dyspepsia, due to a weakened or exhausted nervous system, brought about by chronic disease, from blood impoverisment, and nerve starvation. Worry, and prolonged and severe mental application induce a condition contributing to chronic nervous dyspepsia, while the acute nervous indigestion is the result of sudden perturbation, as fright, bad news, emotion, suspense, etc., where the brain centres interfere with the digestion. This reaction upon the nervous system is productive of a great deal of discomfort, and sudden vomiting or diarrhœa may occur. If neither occur, the stomachic contents is the source of disturbance for sometime afterwards, by reason of arrested digestion. As a cheerful mental condition promote the performance of the digestive function, so a depressed and melancholy state of mind either causes retarded digestion, perverted function, or accompanies a sluggish condition of the organs (liver, pancreas, stomach, and intestine), the functions of which are to secrete a digestive fluid. There seems but little doubt that in the reduction or inferior quality of the biliary and digestive secretions, we have an explanation of the morbific effect reacting upon the nervous system by impairing its healthy nutrition, thus causing despondency, hypochondria, etc. There is for that reason, associated with the dyspepsia resulting from prolonged chronic disease a condition of debility, mal-assimilation, and an impoverished blood quality, resulting in impaired nerve nutrition and neurasthenia. The nerves therefore react but feebly upon the secretory and digestive organs. In a patient who came under my treatment in 1882 for a chronic stellate laceration of the cervix uteri, the general nutrition was so impaired by blood impoverishment and contamination from defective elimination of excrementitious matter, that she suffered decidedly from a nervous atonic dyspepsia, the result of prolonged exhaustion and debility. In nervous dyspepsia Dr. Murchison insists that the nervous system behind the secretory organs is to be assisted, and when the nervous system is in a physiological condition, no dyspepsia and liver disturbance, with excessive uric acid, urates, oxalates, and phosphates are likely to occur (Murchison, Fothergill).

Treatment.—In the successful treatment of this form of dyspepsia we must not lose sight of the fact that a proper quality and perfect blood supply is essential to healthy nerve nutrition, and that failure in this essential, induces a condition of neurasthenia, resulting in impaired secretory function, and consequently a nervous dyspepsia is established. As a frequent complication or accompaniment of lowered life conditions, neuralgia, myalgia, and other subjective sensations occur, which are symptomatic expressions of a general blood impoverishment and nerve starvation. J. Milner Fothergill eloquently, but truly says in his admirable "Hand-book of Treatment," that "Neuralgia is the prayer of a nerve for healthy blood." As to the treatment, the cause should be sought, and if possible removed, whether mental or physical in origin. Any exhausting long continued drain upon the system should be checked. Due attention should be paid to elimination by keeping the excretory organs in physiological functional activity, thus preventing the tendency to blood contamination. And if possible to establish a healthy nutrition by assisting the digestive processes, when insufficient to perform their physiological function.

AUTHORITIES.

Consulted.—William Aitkin, Bermingham, Budd, A. Baur, George M. Beard, Cl. Bernard, Roberts Bartholow, Lauder Brunton, Breslau, Brieger, Buffalini, Cohn, Courty, J. Mathews Duncan, J. M. DaCosta, Fox, Frerichs, Austin Flint, Sr., Fothergill, F. A. Frimont (*Medical and Surgical Reporter*, Jaunary 16, 1886), Farquharson, M. Foster's "Physiology," Sir William Gull, Huffner, Heidenhain, Hall's "Differential Diagnosis," Headland, Jacobson, Dr. P. C. Jensen (*Northwestern Lancet*), Krolow, Külliker, Kuhne, Landois & Sterling's "Physiology," Langley, Ludwig, Leared, Murchison, Marcet.

Referred to.—Nenki, Pasteur, Ringer, Rutherford, Savory, Hoppe-Seyler, Thudicum, Valentine, V. C. Vaughan, Vella, Wittich, Wittinghausen.

CLINICAL LECTURES.

DIABETIC CATARACT.

BY G. E. FROTHINGHAM, M. D.,
Professor of Materia Medica and Ophthalmic and Aural Surgery in the University of Michigan.
REPORTED IN ABSTRACT BY CHARLES E. NORRIS, ANN ARBOR, MICHIGAN.

That brilliant results in medicine are very prone to find their way into the journals has become almost an axiom, and their appearance in print is gratifying alike to the physician, on the one hand, who by close attention to details and a careful study of them secures his success, and, on the other hand, to the careless, hap-hazard man who has by accident fallen on success, one marked feature being that, of the two, the latter is by far the more likely to report his success. However, these reports of successful cases serve a useful purpose and are by no means to be discouraged.

But the report of a case ending in disaster from any cause may serve as good a purpose, provided the cause or causes of the disaster be fully set forth in the report. It may put some one on his guard and so prevent a similar disaster; it may lift a load from another who has had a like experience but who believes himself to stand alone in that respect; or, the disaster being unavoidable under similar circumstances, it may enable the physician and patient to consider rationally a particular case.

Coming under the second category is the following record of a case from the ophthalmic clinic at the University Hospital, together with an abstract of Dr. Frothingham's remarks thereon. To date, the operation for cataract has been done before the class since October 1, 1885, in more than forty cases with perfect results in every case as to vision, and with this sole disaster in other regards.

Mary F., aged twenty-six, came before the clinic January 16, with the following

History.—For twelve years has been engaged in hair working and subjected eyes to constant strain, working at night as well as by day. A year and a half ago she noticed that she could not see as well as formerly, and applied to various physicians, who told her that she had overtaxed the nerve and advised rest. In November last her physician told her it was cataract. Up to that time patient could see to read the index on fever thermometer.

Present Condition.—Slight injection near inner canthus.

Right eye, vision=two lights 15 feet distant, 18 inches apart.
Left eye,....vision=two lights 15 feet distant, 12 inches apart.

Examination of urine showed sugar in abundence, but the patient does not complain of ill health.

Under cocaine the lens of the right eye was extracted upward. Patient kept on regular anti-diabetic diet, on which she was placed before the operation, and for three or four days did well—the wound made for the removal of the lens healing quickly and with no untoward symptoms, and the amount of vision usual at this stage.

January 20: The condition of the patient is suddenly changed for the worse. Pulse weak, rapid, thready; temperature ranging from 100° to 103° Fahrenheit; tongue dry and cracked; respiration shallow; pain in lungs; sour stomach; tendency to delirium. Patient is put on usual diet, and fifteen grains of sulphate of quinine given in an enema.

January 21: Condition more grave. Patient is in such coma that she can be roused only with difficulty; pulse, temperature and respiration below normal.

January 22: Patient completely insensible, and respiration reduced to mere gasping for breath—6 to 7 per minute.

January 23: At 1:30 o'clock A. M. patient died in profound coma.

In the clinical remarks made previous to operating in this case, Dr. Frothingham gave a brief account of the ways in which diabetes might disturb vision, and especially took up the different theories as to how it produces cataract. He discussed these theories at some length and rejected all the others in favor of the one which considers the cataract due to the giving up by the lens of the diabetic its sugar and the substitution of an equivalent of water therefor. Sugar has been detected by actual analyses of lenses extracted from diabetic patients, the analyses having been made by competent chemists at the request of Dr. Knapp and others. The equivalent of water for sugar is equal to about seven to one, so that having been once deposited if the sugar be taken up and removed during some period of the disease when the production of sugar in the system had become from some cause lessened, then seven times as much water would take its place, causing the lens to become swollen and cataractous.

He spoke of the importance of carefully investigating every case, and especially of insisting on an examination of the urine to determine the condition of the kidneys. He stated that although there are several peculiarities in the history of this case that might lead us to infer the existence of the diabetic condition as a cause of the cataract, actual analysis of the urine could alone establish an accurate diagnosis. To illustrate further the importance of such an analysis in deciding a prognosis, he cited a case somewhat analogous to this in which to his subsequent regret he had been led to depart from this rule at the earnest solicitations of a patient for immediate operation. The patient to whom reference was made was a lady forty or fifty years of age, suffering from what seemed to be an uncomplicated senile cataract. She presented herself on operating day, claimed to be in perfectly good health, and her general appearance seemed corroborative of her statement. It was before the days of cocaine, and as was his custom he put the patient under an anæsthetic for the operation, ether being used. A smooth operation was secured, but the patient did not rally from the anæsthetic as quickly as usual, and was affected with nausea and vomiting on the night following the operation and the day after. She never fully recovered from the effect of the anæsthetic, and gradually developed symptoms of coma. An examination of the urine was now made and both albumin and sugar were found in considerable quantities. The wound healed well and vision was as good as usual at that period, but the patient died of coma in about nine days. A postmortem examination with careful examination of kidneys showed the patient to be suffering from both Bright's disease and diabetes. He attributed this hastening of the fatal result of the disease to the effect of ether, which has been observed to aggravate these affections in many cases, and he regretted that he had not made the examination of urine before the operation, for then the patient's friends might have been warned of the unusual danger attendant upon it, and, while the operation would not have been refused if the actual state had been known, for the only relief from blindness was to be found in the removal of the opaque lens, yet he would have done it without an anæsthetic.

In these days, however, we have cocaine, which we may reasonably expect will relieve us from all the dangers arising from the use of general anæsthetics, and with it in cases like the present one, where the patient is hopeful, anxious for the operation, and the danger of shock to the system may be obviated, we may make the operation without fear of hastening the fatal result of the disease. This patient comes anxious to have the operation done without delay and stoutly maintains that her health is good in every respect, but close questioning brings out the facts that she has lost much flesh in the last year or two, and that she has experienced great thirst, though she declares she has experienced no lassitude and is able to work with her usual vigor. By an examination of the urine, however, the nature of the original disease has been settled beyond a peradventure, and there is no doubt as to the correct diagnosis of the local lesion, for he had made careful examination of the lens. Under the circumstances we have no right to refuse the operation. Diabetes is no contra-indication to extraction of a cataractous lens, but it is proper to be aware of such a condition if it exist, before making the operation, for then the patient may be told of the prognosis so far as the operation is concerned, as well as the extreme uncertainty of life from the primary affection. While life may last for a year or more it may not last a week, and the end may come at any time with almost explosive violence. If life is spared for even the shortest time, the satisfaction resulting from the restoration of vision amply repays the patient for all the suffering which is borne to obtain it. He himself had once had a patient who on his death-bed had directed his wife to write him and say that the satisfaction of having his sight in the last hours of his life to take a parting look at wife, children and friends, was so great that he could not refrain from making this request to thank the operator for having thus restored his vision. This patient had had useful vision for a year before his death, but its possession the last hour of his life had afforded him that pleasure which called out this expression of gratitude. So that in the case before us, whatever may be the result of the operation, it is indicated and should be performed.

In a postmortem consideration of the case, Dr. Frothingham said that the fatal result was not dependent upon the operation, for there had been no pain, no shock, no delay of healing; it was not due to anæsthesia, for only cocaine had been used; it could not be attributed to nervousness on the part of the patient, for she had been uncommonly courageous. He had more than once seen such sudden terminations in cases of diabetes, and these wholly outside of ophthalmic practice. Such cases serve to bring medicine into disrepute with the prejudiced and ignorant, who are so liable to give two events the relation of cause and effect when there is no ground for it besides an accidental sequence that may obtain in many cases.

However importunate a patient may be for interference in a particular case, that importunity should have no bearing on the physician's conclusions, for it is born of anxiety and ignorance, and it is not even charity to yield to it. Rather is it true charity to examine into every phase of each case, attend to every detail, and then decide as to its merits in a purely scientific spirit.

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY L. F. HATCH, ANN ARBOR, MICHIGAN.

CASE OF ROUND ULCER OF THE STOMACH: PULMONARY TUBERCULOSIS FOLLOWING.

BY DR. RICHARDIERE.

Mrs. X., twenty-nine years old, seamstress, entered in the month of January, 1885, the ward of Saint Madeleline, a charity hospital, Professor Peter being in charge, succeeded by Dr. Henry Richardiere.

In the month of January, Mrs. X. came asking our assistance for an extremely severe pain, located in the region of the stomach. She was very thin and of very pronounced chlorotic complexion. Her health had been very good until the commencement of accidents which brought her to the hospital. She had never been so sick as to be obliged to keep to her bed many days in succession. She had been regular up to the age of fourteen, and since then very regular. She gave birth to a child, and subsequent to her confinement she suffered for many weeks severe abdominal pains which were attributed to an inflammation of the womb, but disappeared without any special treatment. Mrs. X. lost her husband in 1884, and to her grief were added troubles of every character, brought about by a complete change in her social position. From a position of ease and comfort, she passed to one of deep misery. She suffered privations of every character. It was then, she says, that the painful symptoms commenced which necessitated her entrance to the hospital. From the commencement she felt the pains in the pit of her stomach. Certain foods, difficult of digestion, increased her pains. They appeared immediately after eating and already manifested itself in the form of a paroxysm not intense. Pressure on a level with the stomach was painful. The disease necessitated the disuse of a corset. There was as yet no vomiting; some acid material only would come up after a meal. Her appetite disappeared almost entirely. From day to day the symptoms increased. The taking of food became the cause of intolerable burning pains. The painful paroxysms increased in frequency and severity, to the point that fear of the pains restrained her from eating. She decided to enter the hospital at this time.

When we saw her for the first time, she presented in general the symptoms of simple ulcers of the stomach. She had spontaneous and nearly continuous pains in the region of the stomach, radiating to the left side and back following the line of the ribs. After a meal these pains assumed the form of a crisis of extreme intensity. When the food reached the stomach, she complained of terrible suffering, which caused her to cry out and to weep. She was then in a state of extreme agitation, bending double, seeking, without finding it, for a position in which her pains would be less severe. These pains formed a crisis lasting several hours. It happened that the patient passed several days without suffering. During these days of relative rest there was only a spontaneous pain, deep, dull, concerning which we have already spoken, and the pain on pressure, which remains to be spoken of. Pressure and the more superficial palpation were painful. The entire region of the stomach was sensitive to this method of exploration; but it was entirely in the left part of this region that the pain was adventitious. There was not a pain at one fixed point; but the entire region comprised between the lined alba and a line extending obliquely from the umbilicus to the costal cartilages, a region of many centimeters square, was very painful on pressure.

At this point the local temperature was exaggerated and oscillated between 36.5° and more than 38° centigrade. The lower figures coincide with the period of rest, the higher ones appeared at the time of the paroxysms. With these pains and this local elevation of temperature there existed some vomiting of food. Nearly always the vomited matter consisted of poorly digested food, sometimes of bile and mucus. Never did the patient vomit blood under any condition but this. Three weeks after her entrance to the hospital she had some bloody stools lasting for several days. These symptoms are not reproduced in a series.

The patient, as I have said, had a debilitated appearance. Her general aspect caused us to consider the possibility of a pulmonary tuberculosis still latent. We auscultated her again and again with great care, but always with a negative result. We could affirm what they had entered at the hospital, that Mrs. X. had no appreciable signs of pulmonary tuberculosis. From the month of February to November, her condition was that of an attained disease of ulceration of the stomach. Spontaneous pains, pain from pressure, painful paroxysms, vomiting, local hyperæmia,—such were the symptoms. Whenever she attempted to take any solid food she was a prey to a series of painful paroxysms. In November she began to have a cough and careful auscultation revealed to us signs of tuberculosis at the apex of the lungs. The tubercular lesions advanced with extreme rapidity! Toward the end of November there was pulmonary softening, the spittle presented the rings of Koch, and cavities commenced to form. On the 5th of January, 1886, she died from pulmonary tuberculosis. The symptoms of ulceration persisted without modification.

The postmortem confirmed in all points the diagnosis. Both lungs had attained pulmonary tuberculosis. The right lung presented a general tuberculous infiltration. The stomach was dilated, especially at the fundus. The dilatation at other points was less marked. At the middle of the lesser curvature there existed a deep depression, due to a retraction and thickening of the peritoneal covering at this point. This depression gave to the stomach a slight by-lobed appearance. On the posterior surface the stomach adhered to the diaphragm. These adhesions corresponded to an ulceration of the stomach. This ulceration was located on the posterior surface in its middle part, equally distant from the pyloric and cardiac ends. Its size was that of a two-franc piece. At this place the inner coat of the stomach had entirely disappeared, as if it had been cut away. The borders were regular-formed by the mucous coat and the peritoneum. The bottom of the ulcer was formed by the diaphragm, covered by thickened peritoneum, and adhered around the circumference of the ulceration. These adhesions had prevented the perforation and emptying of the fluids of the stomach into the peritoneal cavity. There was naturally a difference of level between the mucous coat of the stomach and the bottom of the ulcer (at least three to four millimeters); from this difference of level there resulted a small *cul de sac*, formed by the mucous coat and peritoneum. In this *cul de sac* there was some gastric fluid.

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

REPORTED BY A. J. HOSMER, M. D., ANN ARBOR, MICHIGAN.

HIP-JOINT DISEASE.

William N., aged seven years, entered hospital February 18, 1885.

History.—About two years ago the child said he fell and struck his left knee on a stick of wood. On inspection of the limb no injury was noticed, but he complained of some pain and inability to use the leg. A physician was called who pronounced it rheumatism and gave treatment for that disease. The pain and disuse lasted about two weeks. When he first began to go about he was quite lame, which gradually wore away, and he was to all appearance well. Last September (1884) he again slightly hurt his knee, which was followed by an attack much like the former in its onset, but which has continued down to the present time. At times he has been able to walk with great difficulty. Three weeks ago he became worse and has not been able to walk since. At no time has he complained of very severe pain, and all the pain felt in the limb has been referred to the knee. He is of strumous parents and his teeth show evidence of scrofulous diathesis.

Present Condition.—General health good. On examination there is apparent lengthening of the left leg. The foot is placed on the floor in advance of the foot of the sound leg. The diseased limb is much smaller than the other; there is flattening of the left gluteal region; the gluteal fold nearly obliterated; the spine is greatly arched when the flexed diseased limb is extended; complete immobility of the left hip-joint.

Presented in clinic and examined by Professor Maclean who pronounced it hip-joint disease, and directed the child to be put in bed and extention applied by means of weight and pulley.

February 20: The little patient seems to enjoy his position. He is given the sprup of iodide of iron in fifteen minim doses three times a day.

March 6: Taken from bed and stood upon his feet. The weight of the body and movement produce a scarcely noticeable pain.

March 9: Extension dressing removed; limb bathed and rubbed, when, in a few hours, extension again applied.

March 19: Dressings removed. Friction bath preparatory to applying extension splint.

March 21: Patient has complained much of pain since the removal of the weight. Sayre's long extension splint adjusted. It is to be worn through the day when patient is about the ward, but to be removed at night and weight and pulley applied.

March 23: Patient is weak, but is able to walk, with the aid of the splint without much discomfort.

April 1: He has continued to improve in his strength and is so far recovered that he is sent home.

Charles P., aged five years, entered hospital February 19, 1885.

History.—About two years ago the first symptoms of disease were noticed, being slight lameness and pain, which were referred to the knee-joint. The origin of the trouble could not be traced to any accident, and it was thought to be produced from sitting on the damp ground. The lameness, pain, fretfulness and all attending symptoms grew worse. The patient being able, was permitted to walk until one month ago when it became impossible for him to walk. The previous treatment has been for rheumatism. Liniments of all sorts have been applied, and internal remedies given but have afforded no relief. Both his parents are tuberculous.

Present Condition.—The child has evident constitutional disturbance. He is emaciated, with poor general health, and exceedingly fretful. The right thigh is flexed upon the body, and the leg strongly flexed at the knee. The whole limb is abducted and rotated outward. There is flattening of the nates on the right side; absence of the gluteal fold; arching of the spine; and the motion of the hip-joint diminished. The slightest movement causes the most severe pain. A slight jar of the limb causes the child to scream; and there are marked spasms and twitching of the muscles of the hip.

February 10: Patient presented at clinic. Hip-joint disease diagnosed by the class. The child being in severe constant pain and great dread of having the limb touched or disturbed, cloroform was administered and the extension dressing applied. The knee and hip both being flexed, the adhesive straps and loops were put on in such manner that on traction the extension was directed to both the leg and thigh. The extension was applied about 2 o'clock. The child soon recovered from the anæsthetic, but in a short time fell into a continuous natural sleep, and the first time for many weeks appeared to suffer no pain.

February 21: The patient is suffering from spasmodic contractions of the sphincters. He has not had a passage from the bowels or been able to make his water for twenty-four hours. Hot fomentations and turpentine stoops were applied, which relieved the spasms and produced the desired effects.

February 22: Patient much better. His sleep is unbroken, and at no time does he give evidence of suffering pain.

April 3: Continues to rapidly improve. The weight can be removed for short periods without the return of pain, and patient is able to stand on his feet. The dressings were removed to-day for the first time. There is some slight irritation of the skin. Dressings re-applied in the evening.

May 3: Dressings and weight removed. Patient sits up and moves the leg without pain.

May 9: Sayre's long splint applied. Patient has had no pain worthy of notice since removal of weight, but a fluctuating tumor has appeared on the anterior aspect of the thigh.

May 21: Without permission the patient was taken home. He was able to walk quite well with the splint. No pain or tenderness but the fluctuating tumor remains.

Note.—At the time the patient left the hospital it could not be determined what would be the termination of the fluid tumor, but from subsequent information, it disappeared without giving any trouble.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING MARCH.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of March (five weeks ending April 3), 1886, as follows; the disease being arranged in the order of their greatest prevalence: Rheumatism, neuralgia, bronchitis, tonsilitis, consumption of lungs, influenza, intermittent fever, pneumonia, remittent fever, erysipelas, diarrhœa, inflammation of bowels, inflammation of kidney, whooping-cough, scarlet fever, diphtheria, typho-malarial fever, cerebro-spinal meningitis, dysentery, puerperal fever, measles, inflammation of brain, membranous croup, typhoid fever (enteric), cholera morbus, and cholera infantum.

For the month of March, 1886, compared with the preceding month, the reports indicate that influenza increased, and that diarrhœa decreased, in prevalence.

Compared with the preceding month, the temperature in the month of March, 1886, was higher, the absolute humidity was more, the relative humidity was less, and the day and the night zone were about the same.

Compared with the average for the month of March in the eight years, 1879 to 1886, intermittent fever, measles, pneumonia, diphtheria, remittent fever, bronchitis, scarlet fever, and consumption of lungs were less prevalent in March, 1886.

For the month of March, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature was about the same, the absolute and the relative humidity were slightly more, and the day and the night zone were much less.

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of March, 1886, at forty-one places, scarlet fever at forty-three places, typhoid fever at fourteen places, and measles at eight places.

Reports from all sources show scarlet fever and measles reported at the same number of places, diphtheria at twenty-two places less, and typhoid fever at four places more in March, than in the preceding month, February, 1886.

HENRY B. BAKER, M. D., Secretary.

LANSING, April 8, 1886.

EDITORIAL PERISCOPE.

THE MICHIGAN STATE MEDICAL SOCIETY.

The twentieth annual meeting of the Michigan State Medical Society will meet at Jackson, Wednesday June 9. There will be brought before the society, at this meeting, work of such character and import, that every member who has a true interest in the society, and who desires to see attained through it, the most good for the profession, should make it his duty to attend. For a number of years the profession of the state took no interest in its work. The society was controlled by a few, who manipulated it for their selfish and individual purposes, and the political workings of this faction drove the better element of the profession away from its meetings. Happily that era has passed, and earnest efforts are now being made to have the sessions of the society show, that in it, scientific medicine has an exponent. In this, its true and intended purpose, it can be made a power for elevating and asserting the rights of the profession, and for stamping out quackery and its evils.

At this meeting, the society has the work of considering the reconstruction of its own organization. Certain proposed changes in its constitution, which particularly pertain to qualification for membership, and the quality or rank of those who are now members, are to be acted upon. We predict, however, that these proposed changes, which can be found in the report of the Committee on Reorganization, published in the "Transactions" of the society for 1885, have shadowed in them too much of *cast* to be favorably received by men, who are of a people, who believe "that all men are born equal."

But the society has a greater and more important work, than the question of reorganization. It has a work to do, the results of which are not confined to those who are its members, but extends to the interests of the whole profession of the state. If the principle upon which societies are formed, is correct and practical, the united strength and influence of the Michigan State Medical Society should be exerted to free this state of the hideous barnacle that is living and thriving upon its unsuspecting people. Michigan is the retreat for the professional lepers of the Northwest. Being driven out of our neighboring states they not merely seek a refuge in Michigan but have taken possession, and almost defiantly ask: "What are you going to do about it?" They are the majority, numerically considered, of those practicing medicine. Do they exert the greater influence with our state officials?

Michigan must have a law regulating the practice of medicine, and that law should be framed at this meeting of the State Medical Society.

CONDENSATIONS.

Dr. O. W. Holmes says that charlatanism always hobbles on two crutches—the tattle of women, and the certificate of clergymen.

The Austrian Minister of War has ordered compulsory vaccination with calf-lymph for the whole of the Austrian army. The order will be carried out with all expedition.

Dr. E. G. Janeway has been appointed the successor to Dr. Flint in the Chair of Medicine at Bellevue Medical College. Dr. Janeway being eminently fitted, his appointment cannot fail to meet with approval.

The address in medicine before the British Medical Association, which was to have been delivered by the late Dr. Austin Flint, will be given by another American, Dr. John S. Billings, of the United States army.

Removal.—Our readers who may have occasion to consult Dr. T. Gaillard Thomas will note that he has removed from 294 Fifth avenue, New York, to 600 Madison avenue, between Fifty-seventh and Fifty-eighth streets.

A Knighthood Declined.—Mr. Savory, President of the Royal College of Surgeons, has declined being dubbed and created a Sir Knight. This act has no precedent; never before has an English doctor refused a knighthood.

The purser of the steamer Britannic relates an incident of a young lady, crossing the ocean in one of their elegant ships. A portion of her diary read as follows: "At 8 o'clock in the evening I took a pill; at 6 in the morning I passed an iceberg."

Scarlet Wrappers for morphine are now required by the laws of Georgia, Florida, Kentucky and Virginia. In Kentucky not only is the name morphine to be in white letters, but the word "poison," and the "skull and cross bones" must also appear.

In the interests of attendants and nurses in hospitals for the insane, we mention that a manual for their instruction by Dr. Brush, of the Pennsylvania Hospital for the Insane, Philadelphia, is shortly to be published by the well-known house of P. Blakiston, Son & Company.

Diphtheria and typhoid fever is annually increasing in Philadelphia. The health officer of that city has prepared a table showing that the number of deaths during the last year from diphtheria was six hundred; from scarlet fever three hundred and seventy-five, and from typhoid fever six hundred and ten.

A bill for an act to regulate the practice of medicine and surgery in the State of Iowa has recently passed the Legislature of that State and become a law, though its penalties are not to be enforced until January, 1887. The law is similar in many of its features to the Illinois law for regulating the practice of medicine and surgery.

The "lady doctors" in France have gained their long desired recognition. Henceforth the female medical students will be admitted to the hospitals on the same terms as their male colleagues. Sixty aspirants to the M. D. degree are at present rejoicing in the viciory, among them a young negro lady, who is said to be one of the most zealous students in Paris.

Fund for the Encouragement of the Experimental Cure of Phthisis.—Professor Verneuil, of Paris, has started a fund for the experimental study in the treatment of tuberculosis. It is M. Verneuil's theory that it is possible to prevent the development of phthisis after contamination by some method of inoculation similar to that employed by Pasteur against rabies.

The number of physicians in Germany averages one to three thousand and twenty-five inhabitants. Their distribution, however, is very uneven, the cities and watering places being especially well supplied. In Bonn there is one medical man to four hundred and forty inhabitants; in Weisbaden, one to five hundred and fifty-eight; in Berlin, one to one thousand and sixty-three.

The number of deaths from cholera in Spain during the 1885 epidemic, as reported by the Spanish authorities, are seventy-nine thousand five hundred; but the accurate record of the mortality cannot be given. There were numerous omissions to report daily deaths from certain localities and some towns and places where cholera was known to exist are not included in the official lists. It is the opinion of those best able to form an estimate that at the very least one hundred thousand people succumbed.

DISINFECTANTS DEFINED.—No little confusion exists in the popular mind as to what constitutes a disinfectant, a deodorant and an antiseptic. The American Public Health Association has defined these terms as follows: A disinfectant is an agent capable of destroying the infective power of infectious material. Agents which merely mask unpleasant odors are deodorants, and their purpose is not the destruction of disease germs, Antiseptics are agents having the power to arrest the process of putrefaction.

A MONUMENT TO BENJAMIN RUSH.—The American Medical Association is endeavoring to raise enough money to erect in Washington a monument to Benjamin Rush, the renowned physician, true patriot, and eminent literary genius of early Americal history. This is a laudable effort, and we certainly hope that it will meet with success. Contributions by Michigan physicians may be sent to any member of the following committee: G. E. Ranney, Lansing; E. R. Christian, Wyandotte; L. Conner, Detroit; V. C. Vaughan, Ann Arbor; G. K. Johnson, Grand Rapids.

THE mercurial disinfection of rooms is recommended by Professor Rouig in epidemics of cholera, typhoid fever, smallpox, etc. The chambers which have been occupied by the patient should be disinfected by means of fumes of corrosive sublimate in the following manner: The room is closed and a vessel of live coals placed in the middle. Upon this fire about two ounces of the sublimate are thrown, and the room is not opened for three or four hours. The most careful covering up of mouth and nose is necessary on entering to open the windows. After free ventilation has been continued for several hours the remaining traces of mercury may be rendered innocuous by fumigating with sulphur.

SAYRE'S ORTHOPÆDIC SURGERY IN GERMANY.—A well-deserved honor has been paid to Dr. Lewis A. Sayre, by the translation of his "Lectures on Orthopædic Surgery" into the German. The translator, Dr. F. Dumont, of Berlin, pays a glowing tribute to Dr. Sayre, which is alike a credit to his profesional countrymen. In the preface to his translation Dr. Dumont draws attention to the striking characteristic of American medical writers, which is their practicality. This attribute of the American mind is now generally recognized in Europe, and to this quality is credited the reason why they have attained such success in this department of surgery. Dr. Dumont truly observes, the name of Sayre is too well known in Europe to require an excuse for the present translation.

MEDICAL EDUCATION OF WOMEN IN GREAT BRITAIN.—The Scottish Colleges of Physicians and Surgeons (of Edinburgh and Glasgow) have just decided to throw open to women their conjoint examinations and "triple qualification" in medicine, surgery and midwifery. Every one interested in the subject of medical education of women is aware that the Irish College of Physicians opened its examinations and diplomas to women, but it is not so generally known that the Irish College of Surgeons also opened its doors last year, and that at the latter college women are now freely admitted to all the medical classes, with separate arrangements for practical anatomy only. The University of London, the Royal University of Ireland, and the Victoria University, have opened all their examinations and degrees to women. Medical education is now, therefore, available to women in London, Dublin, Edinburgh and Glasgow.

A SANITARY convention will be held at Kalamazoo, June 1 and 2, under the auspices of the Michigan State Board of Health. The following are the addresses and subjects to be presented and discussed:

Welcoming address by Honorable Peyton Ranney, Mayor of Kalamazoo.

An address by the President of the Convention, Honorable H. F. Severens.

Among the subjects which it is expected will be presented and discussed are the following:

(1) History of Investigations Concerning Micro-organisms, and the germ theory of disease.

(2) Personal duty touching prevention of spreading communicable diseases: (*a*) From the stand-point of the lawyer; (*b*) From the stand-point of the clergyman; (*c*) From the standpoint of the health officer.

(3) Disinfection.
(4) Sanitary condition of public buildings in Kalamazoo.
(5) The diseases incident to poverty.
(6) Healthy Homes.
(7) The need of a public hospital in Kalamazoo.

FEES FOR MEDICAL EXPERT TESTIMONY.—In the case of the People versus Vanimmens, recently tried in Big Rapids, Michigan, the judge made the first ruling in this state respecting the fee for medical expert testimony. A physician was called to testify on behalf of the defendant, and when asked for a professional opinion, refused to answer until a fee for expert testimony was secured. The judge said he had no authority to secure the fee; the bill must go before the Board of Supervisors. Witness having had former difficulty with that body, refused to trust it to them. The judge admitted the question had never been decided in this state, and then said: "I can insist on the witness answering, and if he then refuses I can fine him for contempt of court, and then let him fight it out with the Supreme Court. But after many years' study and observation, I decide that a physician's knowledge is his stock in trade, his capital, and we have no more right to take it without extra compensation than we have to take provisions from a grocery, without pay, to feed the jury. The Court rules that the witness is not *compelled* to testify." The doctor left the stand. The defense took exception to the ruling of the Court. Should a new trial be granted, the Supreme Court will have this point to settle.

NEW PUBLICATIONS.

MANAGEMENT OF LABOR AND OF THE LYING-IN PERIOD. A Guide for the Young Practitioner. By Henry G. Landis, A. M., M. D., Professor of Obstetrics and Diseases of Women in Starling Medical Colege; Fellow of the American Academy of Medicine; Member of the American Medical Association; Author of "How to Use the Forceps," "A Compend of Obstetrics," etc., etc., etc. 12mo: three hundred and thirty-four pages; thirty illustrations. Philadelphia: Lee Brothers & Company, 1885.

The author has designed this work to be a practical guide for the physician at the bedside, with special reference to the direction of the young practitioner. It fills its purpose well. It is terse in its style, complete in its information, and clear in its text. The advanced student will find it a desirable companion to his larger text-books on obstetrics; and the "busy practitioner," as well as he who is not so busy, will find when it is in his library that it is a book that will frequently be taken from its place for consultation.

THE TEN LAWS OF HEALTH; OR, HOW DISEASES ARE PRODUCED AND PREVENTED, AND FAMILY GUIDE TO PROTECTION AGAINST EPIDEMIC DISEASES AND OTHER DANGEROUS INFECTIONS. By J. R. Black, M. D. Philadelphia J. B. Lippincott Company, 1885.

First Law: Breathing a pure air—its violation and results.

Second Law: Adequate and wholesome food and drink—violation and results.

Third Law: Adequate out-door exercise—violation and results.

Fourth Law: Adequate and unconstraining covering for the body—violation and results.

Fifth Law: The exercise of the sexual function for, and no interference with, the natural course of reproduction—violation and results:

Sixth Law: A habitation in the climate for which the constitution of the body is adapted—violation and results.

Seventh Law: Pursuits which do not cramp or overstrain any part of the body, or subject it to irritating and poisonous substances—violation and results.

Eighth Law: Personal cleanliness—violation and results.

Ninth Law: Tranquil states of the mind, and adequate rest and sleep—violation and results.

Tenth Law: No intermarriage of near blood relations—violation and results.

The second edition of this little work will find a welcome in my households. It is written upon sound well proven scientific principles, and presents these principles in a form and style to be appreciated and understood by the intelligent reading public. The scope of the work is defined in the laws as above printed.

BOOKS AND PAMPHLETS RECEIVED.

ARTIFICIAL DILATATION OF THE UTERINE CERVIX DURING LABOR. By Dr. W. R. Chittick, Detroit, Michigan. Reprinted from the *Medical Age.*

LISTERISM IN ABDOMINAL SURGERY. By W. P. Manton, M. D., Detroit. Read before the Detroit Academy of Medicine, January 19, 1886. Reprinted from the *American Lancet.*

REPORT OF A CASE OF CÆSAREAN OPERATION WITH SOME COMMENTS. By Edward W. Jenks, M. D., Detroit. Reprinted from Volume X, "Gynæcological Transactions," 1885.

MEDICAL ALMANAC, 1886. Part I: Being an Epitome of the History of Medicine. Part II: Digestion—a Brief Resume of the Latest Physiological Investigation. The New York Pharmacal Association.

NOTE-BOOK FOR CASES OF OVARIAN AND OTHER ABDOMINAL TUMORS. Adapted from the note-books of Sir Spencer Wells and the Samarian Hospital, London. By John Homans, M. D., Clinical Instructor on the Diagnosis and Treatment of Ovarian Tumors in Harvard College. Boston: Cupples, Upham & Company, Publishers.

THE PRINCIPLES AND PRACTICE OF SURGERY. By Frank Hastings Hamilton, A. M., M. D., LL. D., Late Professor of the Practice of Surgery, with Operations, and of Clinical Surgery, in Bellevue Hospital Medical College; Consulting Surgeon to Bellevue Hospital, to the Bureau of Surgical and Medical Relief for the Out-Door Poor at Bellevue Hospital, to Saint Elizabeth's Hospital. and to the Hospital for the Ruptured and Crippled; Fellow of the New York Academy of Medicine, etc. Illustrated with four hundred and seventy-two engravings on wood. Third edition, revised and corrected. 8mo: nine hundred and eighty-nine pages. William Wood & Company, 1886.

MEDICAL DIGEST.

THE DIETARY IN INDIGESTION.

When I hear medical men denouncing a regulated dietary in indigestion, my surprise is excited. Is it a malady to be combatted by drugs only? I do not think anyone will support that proposition. Medicinal agents are not without their value; but the medicinal treatment of indigestion is surely but ancillary to the dietetic management. That a regulated dietary is too often a restricted dietary—so restricted indeed that the patient is practically half-starved—may be admitted. But need a regulated dietary necessarily be a very restricted one? I opine not; if the matter of the dietary of the dyspeptic be given a little more attention.

And for this it is well to keep the physiology of indigestion in mind. Digestion is solution by hydration so that the carbohydrates and albuminoids may pass through the wall of the alimentary canal; after which they are de-hydrated—else they would pass out by the kidney, giving glycosuria and peptonaria and leaving the body unfed. But a preliminary to solution is disintegration. If mastication be not properly performed the "lumps" of food find their way into the stomach and offend it.

Pastry, pieces of hard potato, cheese, are notorious offenders. The solvent action of the gastric juice can exercise no disintegrating effect upon the substances, while they act as irritants and set up pain. A piece of meat comparatively unchewed is less objectionable because the gastric juice acting upon the connective tissue allows the muscular fibrillæ to fall asunder. But even with muscular fibre there is a wide difference. Pork and veal are hard meats, and not readily falling to pieces in the stomach under the action of the gastric juice are held, and rightly too, to be indigestible. On the other hand a thin slice of well boiled ham, cut across the fibre is very digestible. So is the loose fibre of a sheep's head. This is the mechanical aspect of the digestibility of food. Hard stringy meat is very indigestible. So are ill-cooked vegetables, and especially the cruciferæ, so are hard boiled eggs.

Fish, and especially white fish, whose fibres very readily fall to pieces, are in repute with dyspeptics for obvious reasons. Fish which are fatty, are indigestible (because the fat resists the action of the gastric juice) as the flesh of the salmon, the mackerel and the herring. The short fibre of the whiting, "the chicken of the sea," makes this fish especially digestible. Then come the flat-flishes, the haddock and the cod. They all are best boiled, for if fried, care is requisite that the flesh be not soaked in fat—when it is highly indigestible. There are few more indigestible matters than a fried sole which has not been skillfully cooked. And the same holds good of birds. Chicken and game are digestible, while the duck and goose, greasy-fibred meats, are as certainly indigestible.

Potatoes have an evil reputation, but that again is largely a matter of cooking. A potato which is imperfectly cooked has a hard centre. A "stone" an Irishman calls it—and if palpable pieces of such hard indigestible matter be swallowed gastric distress is the intelligible result. But if the potato be well cooked and put through a sieve it ceases to be indigestible from "the mechanical point of view." It is the question of disintegration which militates against vegetables, and uncooked fruit. Pieces of hard apples are notoriously indigestible; while a baked apple will sit lightly on the most irritable stomach. The flesh of the grape is in great repute in all conditions of gastric irritability and debility whether primary or secondary to some general sickness.

Fat is an offence to a susceptible stomach, even as liquid fat floating about in it; but still more as lumps of fat upon which the stomach can exercise no solvent influence. Hence many persons, children and adults, reject sweet pieces of fat, and (after the meal) take some fishy oil. As the digestion of fat does not commence till the food has left the stomach, it is not well to give fat till its "time draws nigh." Thin stale bread with butter rubbed well in and doubled is much more digestible than the same bread cut thick with a stout layer of butter plastered over it.

Pastry, when fat and flour are well rubbed together, form a most indigestible compound resisting all disintegration except mastication. Suet puddings and dumplings also are very indigestible.

On the other hand milk puddings, especially if made without an egg, are in repute, and not without reason for dyspeptics. They are light and sit easily on the stomach, the farinaceous matter being readily disintegrated, and what escapes disintegration is soft and does not give offence to the stomach.

There is another matter not of accult but of microscopic disintegration, or actual solution which has yet to be discussed—a matter of vital importance. As savage man sat grinding the cereals which form so large a factor in human food, the action of the jaws produced a free flow of saliva, and as fast as the finer particles were broken off the seed, by the crunching of the teeth, diastase of the saliva converted the insoluble starch into the soluble dextrine and grapesugar. The toil of the miller produces disintegration and relieves the jaws of much of the labor. But disintegration is only the precursor of solution. The starch granule remains. By heat the cook cracks the starch granule so that the solvent diastase can readily act upon it. So far, so good; but heat does something more. It has an actual solvent action and heat will, if sufficient, cause conversion of starch into dextrine. A thoroughly well baken flour if subjected to the iodine test under a microscope will readily show this.

When a large quantity of raw unconverted starch enters the stomach it is a burden to that viscus. The gastric juice has no effect upon starch and the starch granules merely embarrass the action of the stomach until they find their way out of it by the pyloric ring—and sometimes by the way they entered, namely, the gullet. Undigested starch hampers the stomach and makes the labor of that viscus a painful toil to it. New bread is a gross mechanical irritant, resisting disintegration. The impediment caused by isolated but numerous starch-granules is another matter. Biscuits and crackers if insufficiently masticated cause indigestion. So do cakes which have not long been exposed to heat. The cakes which are held in such favor by the breakfast table in American households, have been regarded as indigestible and a glance at an American cooking book explains why. These cakes are exposed to heat for from thirty to forty minutes only. [The language of England sometimes requires translation. For cakes read rolls, and for buscuit read cracker.—EDITOR]. A good biscuit or loaf is much longer in the oven. Potatoes are indigestible as ordinarily eaten, because they are not long exposed to heat. But if well mashed potatoes be put into the oven to brown, or be placed before the fire for that purpose, the longer exposure to heat tells upon the starch-conversion.

Hominy that is well boiled or subjected to the final heating process of cooking is decidedly digestible. Cereals that have been steam-cooked are in repute with dyspeptics either for adding to meat teas, or for preparing milk-puddings. Some cooks who have to cater for dyspeptics boil all their rice, sago, and tapioca thoroughly before making these up with milk for a milk-pudding. In Germany pearl-barley thoroughly well boiled and passed through a sieve is in request as an addition to meat teas for invalids. The porridge of Scotland being made with coarse oatmeal is boiled a long time, while in England a short boil is enough with the fine ground oatmeal in vogue there.

The advantage of the numerous prepared foods—whether babies' food or invalids' foods—which are all more or less compounds of starch which has been to ascertain extent predigested either by baking or the malting process, lies in their ready digestibility. A touch of saliva is enough to complete the conversion of such carbo-hydrates and the soluble matters pass out of the alimentary canal, and the stomach is not burdened with a weight of undigested starch impeding its work.

Gross and fine disintegration of food are cardinal matters in the dietary of dyspeptics.

Mastication must be perfect else gross particles embarrass the stomach. Starch granules which have escaped the saliva interfere with the solvent action of the gastric juice on albuminoids. The dietary of dyspeptics must be conducted on the above lines; and if the dyspeptic were properly informed he could find a sufficient variety of food; but if he be told to diet himself upon a number of articles of food he soon begins to loathe them and often goes without food sooner than partake of them.

Of course there are dyspeptics and dyspeptics! Some only require to give a sufficiency of time to the process of mastical tion to be free from suffering. Others must eschew pastry, vea- and pork. Others again have to abandon solid meat and vegetables and adhere to meat broths, with cooked starch, malt-extracts, malted preparations, milk puddings and fish. When the stomach has been outraged or offended care is requisite for its restoration. When there is present a condition of general exhaustion food will disagree which ordinarily can be taken with impunity. When a condition of acute indigestion is set up a very careful dietary for a few days is directly curative.

Ready disintegration and solubility of food constitute the base line of the dietetic treatment of indigestion.—Dr. Fothergill in *Journal of Reconstructives,*

THE CEREBRAL PARALYSIS OF CHILDREN WITH APHASIA·

Professor Murtin Bernhardt (*Virchow's Archiv*, Band CII, Heft 1) discusses, at great length, the cerebral paralysis of children, and gives a lengthy dissertation on aphasia in children, especially that from accompanying hemiplegia. The article embodies the clinical records of eighteen cases that occurred under the author's own observation. In fourteen out of eighteen cases the hemiplegia involved the right side. All the children were under twelve years of age; the youngest was eighteen months old. Thirteen of the patients were girls and five were boys. This disproportion in the set, the author thinks, was probably accidental. With very few exceptions, the children were the offspring of healthy parents, and developed normally during the first months or years of their life. Regarding the etiology, the most varied causes were stated by the parents, such as colds, fright, etc., but no reasonable cause could be assigned for the majority of the cases. In not a few, however, there was a direct connection with a prior infectious disease; three followed scarlatina and one followed measles. The disease sets in suddenly, in apparent good health, with severe convulsions, which may last for hours and days (with slight pauses). The convulsions are accompanied by complete loss of consciousness, and most frequently affect only one-half of the body. Immediately on the cessation of the convulsions, hemiplegia—complete in some cases, incomplete in others—is observed. Commonly the upper extremity is affected to a greater degree than the inferior extremity, and the muscles of the shoulder to a greater degree that the muscles of the fore-arm. The muscular sense of the affected muscles seems not to be disturbed. The most interesting feature of this disease is the effect it has on the faculty of speech. The little patients that have not yet learned to speak learn with great difficulty, and only imperfectly. The others lose their power of speech completely for a shorter or longer period. In the latter cases speech is regained after a period of weeks or months. Some of the patients speak as well as they had spoken prior to the onset of the affetion; in others, again, the restitution of speech is only imperfect. One of the author's cases offered a feature of considerable interest. The little patient had suffered from right-sided convulsions for hours, which were not followed by the usual hemiplegia, but only by aphasia. In four of his cases the convulsions and hemiplegia affected the left side; in two of these cases there was no disturbance of speech; in one, the mother stated, the child did not speak for two days after the onset of the convulsions; and in the fourth the child spoke indistinctly and slowly.

Bernhardt is of the opinion that aphasia may occur in children from functional disturbances, and to this form he gives the name of reflex aphasia. In support of this opinion he quotes the published cases of Kussner, Hennoch, Siegmund, and Lichtenstein. In those cases the aphasia came on suddenly without any paralysis, lasted from one to eight days, and then disappeared on the administration of an emetic, cathartic, or anthelmintic. Other cases are related by the author in which fright, the acute exanthems, and typhoid fever were followed by a temporary aphasia. To explain the temporary nature of the aphasia accompanying right-sided hemiplegia, Bernhardt offers the modern theory, which assumes that the right hemisphere takes on the action of the left hemisphere when its function is destroyed by a lesion. This theory, he says, would be materially strengthened if the left extremities took on the function of the right paralyzed extremities. This often occurs, but not always. A case reported by Waldenburg strongly militates against the theory. A child, born of a mother that had been seized with right hemiplegia and aphasia in the third month of pregnancy, suffered at the time of birth from paresis of the right side, and never learned to speak, although the sense of hearing was intact and the intelligence good. Waldenburg justly concluded that there had been an intra-uterine lesion of the left hemisphere, yet the right hemisphere never acquired the functions of the left.

From his own observations and the study of the literature on the subject, the author arrives at the following conclusions relative to aphasia in children: (1) True aphasia in children is not rare; Steffan's recent estimate of ninety cases is rather under the actual number. (2) Regarding its etiology, the same factors obtain as in adults, with this exception, that aphasia in children more frequently follows the acute exanthems, and is not infrequently a functional disturbance; such are the reflex aphasias. (3) There can be no doubt that the aphasia, in most cases, is a transient symptom, but at times remains in a minor degree, and forms a part of the picture of infantile spastic hemiplegia. (4) Aphasia in children, as in grown-up persons, is not always connected with a hemiplegia. (5) When the lesion affects the speech center or its tract at any part, the aphasia may disappear, in part or entirely, through the right hemisphere acquiring the function of the left spontaneously or by education. (6) As a corollary of the last it is important to teach the child to use its left hand, and in this way aid in the development of the right hemisphere. (7) The aphasia of children is mostly of the ataxic or motor form. (8) What the nature of the lesion is in the so-called congenital aphasia, unattended by hemiplegia, has not as yet been determined, for, in true cases of this kind—that is, where the child is not idiotic and its sense of hearing is intact—careful autopsies, so far, have not been made. It is a matter of great importance to the practitioners to be able to differentiate between the spinal and cerebral paralysis of children, both of which offer many points of resemblance. Both set in suddenly without any warning, are attended with fever and convulsions, and are followed, in a day or two afterward, by paralysis. By remembering the following features, an error in diagnosis may be avoided. In the cerebral variety the convulsions are more violent and of longer duration, affecting, for the most part, one side of the body only; the subsequent paralysis affects one side of the body, and involves the facial (lower) muscles; the atrophy and arrest of growth do not progress so rapidly nor attain to so high a degree as in the spinal form. An examination by electricity is of great assistance in the differential diagnosis. The muscles and nerves retain for a long time their excitablity to both currents in cerebral paralysis, while in spinal paralysis the electric excitability rapidly disappears; "the reaction of degeneration" is obtained at an early stage of the disease. The treatment in the initial stage consists in combatting the fever, convulsions, and cerebral congestion. Leeches to the mastoid process of the side opposite to that affected by the convulsions, the emptying of the bowels, and chloral enemata, form our principal means for this purpose. After the stormy onset has subsided, the duty of the physician is to regulate the bowels, interdict any injurious articles, and carefully apply the galvanic current through the head. The strength of the latter should be very feeble at the commencement, and carefully regulated by an accurate galvanometer. The author thinks none but those accustomed to the application of electricity should undertake this method of treatment. Five to six séances, of from three to four minutes' duration, are recommended. These must be continued for a long period, and, later on, can be associated with moderate massage and passive movements of the paralyzed muscles. It is important also to teach the child to use its paralyzed members as much as possible.

CEREBRAL SYPHILIS.

Dr. George Ross publishes (*Canada Medical and Surgical Journal*, January, 1886) four very interesting and instructive cases of cerebral syphilis. The cases are instructive in that they graphically present to our mental view a fact with which we cannot too often be impressed in the diagnosis and treatment of obscure and serious cerebral symptoms. One of the patients suffered from exquisite ataxia with loss of the patellar reflexes, and from disturbances of sensation. There had been no evidence or history of syphilis. The patient made a rapid recovery under antisyphilitic treatment. Another of the patients consulted Dr. Ross for an obstinate skin eruption on the face, the nature of which was suspicious, though no history of a primary sore could be obtained. Under antisyphilitic treatment the eruption soon vanished. A year or more later the patient became the subject of epileptic attacks, grew irritable, and in a short time passed into a comatose state in which death was hourly expected. Large doses of potassium iodide worked wonders, the patient recovered, and he is now known by his friends as "the resurrection man." The third case was in a young man, of thirty years, who suffered from severe headaches and epileptic fits. The patient had contracted syphilis three years before. He was cured by large and increasing doses of potassium iodide. The fourth patient was aged forty, and had suffered from severe pain in the right side of the head, with hemiplegia of the left side. The hemiplegia came on suddenly without any loss of consciousness. A peculiar feature of the case was that the patient had contracted syphilis only seven months before. The patient improved under the administration of protoiodide of mercury. The author emphasizes an important element in the successful treatment of cases of cerebral syphilis, to-wit: The rapid bringing of the system under the influence of mercury by inunction. It is not enough to diagnosticate cerebral syphilis by the result of a single large dose of potassium iodide.

Professor C. G. Gerhardt contributes an article on brain syphilis in the *Berliner Klin. Wochenschrift*, Number I, 1886. After stating the grounds in favor of the theory that the syphilitic poison is conveyed by the blood in a later stage of the disease, although at first its propagation may be by the lymph-vessels only, he goes on to say that the brain affections for the most part are due either to an endarteritis or gummata springing from the membranes. Only very rarely indeed do gummata grow in the connective tissue of the brain substance. Of twenty-seven cases collected by Herzheimer in the author's clinic at Würzburg, in nine cases the period elapsing from the initial sore to the onset of the cerebral symptoms was determined. This period in one of the cases was three months; in another case it was five years; in three cases it was five to ten years; and in four cases it was ten to sixteen years. Cases occur, the author says, in which even the latter period is prolonged. Of these twenty-seven cases, fifteen were in men and twelve in women. In the better classes, however, for several reasons, the preponderance of the male sex is much greater. Of fiteen cases in the author's private practice, three only were in females. Every form of syphilis may undoubtedly be followed by cerebral symptoms, but two forms are worthy of special note. In the one the poison enters the system surreptitiously, the primary sore is insignificant, perhaps is not recognized by the patient; there are no secondaries, but years afterward brain symptoms develop, which, from their nature and curability, indicate that they are of a syphilitic nature. In the other the virulence of the poison manifests itself by severe secondary symptoms which are not easily controlled; they lead early to ulcerative skin diseases and end in disease of the brain. These form the two principle types of easily curable and incurable brain syphilis. Gerhardt emphasizes the role played by traumatism as a predisposing cause. The symptoms of cerebral syphilis may be of endless variety, or form the most varied combination, according to the seats and number of the lesions. Yet, in many cases, the diagnosis of cerebral syphilis may be made without any evidence of a primary sore or secondaries, and without any appreciable changes in the other organs. This should be the aim of the physician, and should be more frequently attained than it hitherto has been. Through the unfortunate principle of giving a few tentative doses of iodide of potassium in obscure brain symptoms as a means of differential diagnosis, many of these cases pass unrecognized, and very few are healed. The most frequent symptom of syphilitic cerebral endarteritis is apoplexy. Of sixty-three cases of apoplexy in the Würzburg clinic (tumors excluded), twenty-two were of syphilitic origin. Prodromes, owing to the nature of the pathological change, are much more common in this form of apoplexy than in that proceeding from hæmorrhage. The attack of apoplexy may be very complete, but it is more typical, however, when it is preceded by prodromes, when it is not attended with loss of consciousness, and when it is frequently repeated within a short time. Gummata are quite commonly superimposed growths (Beleggeschwulste). They may cause the most diverse cortical symptoms and paralyses of the cranial nerves, but one thing they cannot bring about, and that is the general violent headache with stupor of massive, expansive brain tumors, such as gliomata. When the gummata are cortical they will bring about monoplegia, cortical epilepsy, and mixed forms of epilepsy and hemiplegia. When they are basilar they will produce crossed paralyses and severe implications of isolated cranial nerves, and so on. In both situations paralysis of the muscles of the eye and ptosis will play an important role and cause repeated attacks of vertigo. As in syphilitic skin diseases, which change themselves one into another and run through the series from roseola to deep gummatous ulcers, so polymorphism characterizes brain syphilis. For instance, we have epilepsy followed, in a short time, by apoplexy, or by the remarkable disturbances of the faculty of thinking, to which disturbances of the memory or speech may be added, or these may occur in the reverse order. Very often it is difficult to explain all the changes, supposing them to spring from one easily proved focus. The more accurate investigations of the present day teach us that brain syphilis is far more common than we hitherto have held. Many of these cases are curable if seen and recognized early; afterward they become incurable. One only needs think of the endarteritis and of the consecutive brain softening which follows complete closure of the blood-vessels to believe this. These cases must be treated as early, as energetically, and as long as possible. For many weeks three to seven grammes (forty-five grains to one hundred and five grains) of gray ointment must be rubbed in daily, and along with this must be given two to five grammes (one-half drachm to one drachm, fifteen grains) of iodide of potassium interally. Though Fournier's estimate—that one-third of these patients are cured, one-half undergo improvement, and one-sixth die—may be considered, in the main, valid, still we may hope that, with an early recognition of the affection and with an energetic combined treatment, better results will be obtained.

CAUSATION OF HIP-JOINT DISEASE.

Dr. MacFarlane, in the *Canada Practitioner*, begins with the statement that one portion of the profession adheres to the venerable teachings of the past, the constitutional origin, and another is just as enthusiastic in behalf of the modern theory, local origin of the disease. As advocates of the local origin, he quotes Sayre. Very many of the patients in the earlier stages of the disease are robust looking, and in all cases cured by nature, the patients, subsequent to the cure, are hale and hearty. If the patient had had scrofula in his system it would have remained; the very fact of their becoming vigorous and robust in his judgment, shows that the disease is not of constitutional origin. The fact that patients that are apparently at the point of death have, after exsection, become strong and robust, is good evidence the disease was local. A large majority of cases occur in children while scrofula is not so restricted. The greater number of cases occur between the age of three and ten years. This, Sayre claims, is accounted for by the fact that prior to that time the child is under the care of mother or nurse and not exposed to the same danger from accident. Dr. MacFarlane then says: Let us consider the arguments set forth in favor of the local origin by Dr. Sayre. Have we not all seen old persons with a number of cicatrices on the neck, the results of scrofulous suppuration of the glands, which in all probability, rendered the early part of their lives miserable, who are now vigorous and robust. No one would claim that the disease was not constitutional. The fact that before and after an attack of scrofula a patient is healthy does not convince me that the trouble was not constitutional. Scrofula does influence the time that an inflammation runs, and consequently it is more tedious and difficult to cure than in a healthy subject. The proportion of children suffering from hip-joint disease is trivial in proportion to those receiving such injuries as produce it. If the disease was local the symptoms usually following such would manifest themselves within a very short time, but we know that months elapse before parents feel called upon to consult a surgeon. The child being quite free from lameness in the morning, also those days in which he does not go out or runs less, there is no complaint of pain and this does not agree with the theory of local origin. Billroth says of scrofula or struma, it is a disposition to chronic inflammation in which the inflammatory process may lead to the development of granulation, suppuration or caseous degeneration, or in another place, to assume a scrofulous diathesis, for those cases in which a slight and transient irritation in some part of the body, sets up a chronic inflammatory process, which not only outlasts the irritation, but spreads or continues independently of it, which usually results in suppuration or caseation, and rarely assumes the form of a pure hyperplasia. Speaking of the pathological changes says, through the progress of the plastric infiltration, the synovial membrane gradually loses its former structure; the connective tissue, filled with new cells, gradually becomes homogenous, and from the constantly increasing vascularization, the tissue histologically exactly resembles that of granulations. In these spongy granulations small white nodules form here and there; these are sometimes like mucous tissue, sometimes they are composed of pus cells and even giant cells. The author cites the experiments of Kœnig and Hueter as proving, beyond a doubt, the tubercular origin of most of the cases of so-called granular or fungous synovitis. He also quotes Gurlt, of Berlin, who states that he has not met with tubercle either in joints or bone. Virchow considers tubercle as fully compatible with changes of inflammatory products. The two last have not made experiments. He then cites the following case: Patient suffering from hip-joint disease, and in the same institution was a brother with phthisis, and a sister with curvature of the spine. Another case of patient with hip-joint, another with tubercular abscess of mesenteric and pelvic glands, and a third, member of the same family, died of consumption. There is no history (?) of injury to hip in the one suffering from the hip-joint disease. Thinks exposure to cold more likely to light up the disease than injury, although a blow or fall may be the exciting cause, in a person with strumous diathisis. The same causes that tend to excite pulmonary phthisis are prime factors in exciting hip-joint disease. Persons dying of strumous disease of the joints present the following pathological changes, namely, tubercles and cheesy deposits in the lungs, exhibiting the same characters as ordinary phthisis, also tubercular deposits in peritoneum, brain and lymphatic glands, strong proof of constitutional origin. Tubercular disease of joints may be primary, and deposits of tubercle in joint be the only evidence of tubercle. Cohnheim thinks the infection reaches the body through the lungs and intestines, and circulating in the blood, perhaps through the corpuscles, escapes at the injured point. Schuler's experiments show the possibility of inducing fungous inflammation of joints by very slight injuries in animals made tuberular by inhalation. Local tuberculosis may, at any time, produce general tuberculosis.

THERAPEUTIC PROGRESS.

Terpene in Pulmonary Lesions.—Dr. Descroézelles has successfully treated a case with terpene, which he describes as pulmonary tuberculosis or chronic bronchitis simulating tuberculosis.

Action of Arsenic on Sweat.—M. Monin states that he has noticed in the case of a lady who was taking Fowler's solution of arsenic the occurrence of very offensive axillary sweats, which ceased when the medicine, at her earnest request, was discontinued.

Absinthine to Create an Appetite.—Dr. Ferdinand Roux gives globules containing fine centigrammes of the active principle of absinthine. He has observed that this substance increases a flagging appetite, and creates one when absent. It also removes constipation.

Cocaine for Nymphomania.—Professor Parvin, of Jefferson Medical College, exhibited to his class a case of nymphomania and masturbation, where the most satisfactory results followed the application of a solution of cocaine to the clitoris and vagina: this is the first case recorded where this drug has been so used.

BROWN-SEQUARD'S MIXTURE FOR EPILEPSY.—

℞.	Iodide of potassium	ʒviij.
	Bromide of potassium	ʒviij.
	Bromide of ammonium	ʒiv.
	Bicarbonate of potassium	ʒv.
	Infusion columba	℥v.

PILOCARPINE IN TREATMENT OF DOUBLE PNEUMONIA.—Dr. Molliere treated with success a case of double pneumonia with pilocarpine. The injection of a centigramme of pilocarpine caused the respiratory movements to fall from 48 a minute to 24, and dyspnœa was much relieved; the injection was repeated in four hours and on the next morning. The patient rapidly recovered.

CARBOLIC ACID, OR PHENIC ACID.—This acid is attracting so much attention of late as an antiseptic agent that it is important to know that a pure article is being used. Tests: (1) It forms a yellow picric acid with nitric acid; (2) Gives a green color with ammonium hydrate; (3) Gives a lilac color with a solution of sulphate of iron; (4) Gives a yellow precipitate with bromine water.

FOR SPINAL SCLEROSIS.—Professor Da Costa claims to have seen marked improvement in posterior spinal sclerosis from the long continued use of the following formula:

℞.	Bichloride mercury	gr. ss.
	Chloride ammonia	gr. xl.
	Water	ʒij.

M. One teaspoonful one hour after meals.

FOR ASTHMA.—Dr. Q. C. Smith recommends the following for the paroxysms of asthma:

℞.	Muriate of pilocarpine,	
	Apomorphia, āā	gr. ⅛.

M. To be administered hypodermically.

The patient will quickly sweat profusely, breath easier, and obtain sleep in ten minutes.

PILOCARPINE IN OPTIC NEURITIS.—Dr. Sorokin reports a case of descending optic neuritis accompanied with complete loss of vision, in which subcutaneous injections of chlorohydrate of pilocarpine, the solution containing one part in one hundred of water repeated daily, were soon followed by notable improvement in the vision, and by a change in the aspect of the optic nerve when examined with the ophthalmoscope, until at length it became normal. Thirteen injections were used, and towards the close of them strychnia was administered in the form of injection.

Dr. Joseph Mullone, of Indiana, reports most excellent results in severe anasarca of malarial origin, from the use of the following:

℞.	Compound spirits of juniper	oj.
	Sulphate of iron	ʒij.
	Aceate of potassium	ʒss.
	Fluid extract digitalis	ʒij.
	Syrup of squills	ʒss.

M. One tablespoonful thrice daily.

In severe cases the patient is to drink also a cold infusion of elder-root.

Chrysarobin and Salicylic Acid in Psoriasis.—In his second edition of his "Photographic Illustrations of Skin Diseases," Dr. Fox speaks of a combination of chrysarobin, salicylic acid, ether and collodion for the external treatment of psoriasis. The formula which he advises is as follows:

℞.	Chrysarobin	10 parts.
	Salicylic acid	10 parts.
	Ether	15 parts.
	Flexible collodion	100 parts.

Chrysophanic acid causes more staining of the integument, and the severe dermatitis and injury to the clothing, are not produced by this combination.

Ether and Opium in Small-Pox.—During a recent meeting of the Medical Society of the Paris Hospitals, MM. Dreyfus-Brissac and Balzer mentioned that they had tried M. du Castel's ether and opium method of treating small-pox for a considerable time, and had convinced themselves of its efficacy. It consists in subcutaneous injections of ether, a daily dose of from fifteen to twenty centigrammes of opium being administered by the mouth. In severe and confluent cases the papules become abortive, suppuration is diminished, and the general improvement is rapid. M. Balzer prefers administering the ether as well as the opium by the mouth, but M. du Castel considers this less efficacious than the hypodermic method.

Hydrofluoric Acid a Powerful Antiseptic.—In a recently published article it is stated that hydrofluoric acid is a powerful antiseptic and antifermentative. Its use in pulmonary tuberculosis, diphtheria, and for dressing bad wounds and sores, has been very beneficial. It has to be used with care, especially if the patient be liable to asthma, hæmotysis or emphysema. M. J. Bergeron finds that inhalations of this acid are of great service in treating diphtheria. M. Dujardin-Beaumetz has made careful investigations in a factory where this acid is used for engraving on glass, and has obtained data indicating that not only hydrofluoric vapors are not unhealthy, but that they have a favorable action on the work-people who have pulmonary affections. In a series of experiments made by MM. Dujardin-Beaumetz and Chevia, it was observed that an infinitesimal quantity of this acid arrested fermentation.

PILL EXCIPIENTS.—

Camphor, after being powered with a few drops of spirits, makes a good mass with tragacanth paste.

Acetate of potassium may be made into pills with Canada balsam, and will remain stable.

Pulverized extract of colocynth, or the compound pill of pulverized colocynth, may be easily worked into mass with a few drops of compound decoction of aloes as it contains an alkali.

Tragacanth paste should not be used to mass croton chloral as it dissolves it. Confection of hops and mucilage is better.

Citrate of iron and quinine make a good pill, with just a drop of water; but being delequescent, the pill will not keep long.

Copaiba makes a firm pill, with the addition of a small quantity of carbonate of magnesium.

Creasote, if ordered with the oxide of silver in a pill, will explode, unless the oxide be first diluted by trituration with licorice root or gentian before adding the creasote.

Pills containing fluid resins, fluid balsams, or volatile oils are best made with melted cocao butter.

Carbolic acid is best made into pills with powered licorice root or flour, one and one-half grains to two grains of acid.

Phosphorus, when prescribed in pills, should be dissolved in bisulphide of carbon.

INDIAN HEMP AS A DIURETIC.—The treatment of dropsy with apocynum cannabinum (American Indian hemp), by no means to be confounded with cannabis indica, was lately the subject of an interesting paper read by Dr. Andrew H. Smith before the New York Academy of Medicine in the "Section of Materia Medica and Therapeutics." This plant is indigenous in America and has long been used and prized for its diuretic properties. Dr. Rush called it the "vegetable trocar." Dr. Mott used it, but thought it too active for any but sthenic cases. In 1869 attention was redirected to it by Dr. Harry Jewett, of Canandaigua, New York, who, "as a tonic and diuretic," regarded it more efficient in the cure of general anasarca and in removing the accumulation from serous sacs than all other remedies known to the profession. In atonic cases he recommended small doses at short intervals. A rapid cure was the result in his hands, where there was not incurable organic disease. The drug has a place in the pharmacopœia of the United States in the form of powder of the root and a tincture prepared from this (see Martindale and Wescott's Pharmacopœia). But Dr. Jewett used a decoction made with one drachm of the bark of the fresh root to eight ounces of water; of this the dose was one-half an ounce every six hours. In 1875 Dr. Hutchins related a case of general anasarca, with pleuritic effusion and hydropericardium, extreme dyspnœa and enormous distension, in which some of the drug gathered by and got from Jewett, acted so that in forty-eight hours, the man who had been so frightfully distended was reduced to a skeleton. Dr. Smith's cases were three in number. One was a failure, perhaps owing to a bad selection of the drug. In another—a case of renal disease, with scanty urine and threatening uræmia—the apocynum excited profuse diuresis, and danger was averted. The third case was one of general anasarca, ascites, and œdematous lungs, with extreme dyspnœa, face cyanotic, and a mind wandering. All diuretics had failed, and it seemed unwise to annoy the patient with further treatment; but as a *dernier ressort* the apocynum was tried and the quantity of urine was raised from between six and twelve to thirty ounces, and the urgent symptoms were relieved. The drug evidently deserves attention, and to have its action and uses defined.

SPECIAL NOTICES.

Gives Perfect Satisfaction.—Acid mannate gives perfect satisfaction and will be freely used by me. C. W. Little, M. D., Challis, Idaho.

Dr. H. R. Hopson, Memphis, Tennessee: This is to certify that I have made use of Colden's liquid beef tonic in several cases of consumption and general debility, and have found it to act admirably in such cases as a nutritive food and tonic.

Uterine Tonic.—Aletris cordial (Rio) is, without doubt, an excellent uterine tonic. I am more than pleased with the satisfactory results produced by its use in cases of uterine troubles which have come under my observation. I regard it as an invaluable medicine. H. T. Cox, M. D., Mobile, Alabama.

Valuable Suggestions in the use of Lactated Food.—J. Milner Fothergill, of London, England, writes to the Messrs. Wells & Richardson Company, of Burlington, Vermont, as follows: *Gentlemen:* Having requested me to give you my opinion, as a food expert, upon your lactated food, I do so herewith. You state that it contains "the purified gluten of wheat and oats with barley diastase and malt extract combined with specially prepared milk sugar;" in other words, that it is self-digestive as regards the conversion of insoluble starch into soluble dextrine and maltose. My experiments with it leads me to hold that this is correct. The food then contains carbohydrates, some albuminoid matter and the various salts in grain, notably phosphate of lime. Such a food can be added to milk and treated in the manner you describe in your leaflet. So prepared with mlik it forms an admirable food for infants and dyspeptic persons who require very digestible aliments. But it has a wider range of utility. The body-temperature is kept up by the combustion of grape sugar. Grape sugar is supplied from carbohydrates, either the insoluble starch, or the soluble sugar. Starch forms a great portion of our food and is converted into grape sugar within the body. Where the system is unequal to the digestion of starch, as in feeble digestion, or conditions of acute disease, then predigested starch must be furnished to the organism. Otherwise the system will perish of exhaustion, just as a fire dies out when its fuel is consumed. Beef tea contains nothing which can form grape sugar, and in fact is a pleasant stimulating beverage or food adjunct; but without food value practically. (For what food value it has is so infinitesimal that it is not worth counting). But when it has added to it a food such as your lactated food it has a distinct measurable food value. Consequently such food should be given with beef tea, and the compound forms a valuable food. When lactated food is placed in water hot enough to be sipped a rapid transformation of the starch remaining in it (by the diastase it contains) goes on; and a nutritive fluid is the result which requires but a minimum of the digestive act. Such fluid can be flavored and drank as a nutritive beverage, specially acceptable in febrile conditions. Flavored with lemon, ginger, cloves, or other flavoring agents to give variety—a matter far too much neglected in the treatment of the sick—it can be largely used. Or wine, either red wine as claret, or sherry, or port, can be added to it when a little stimulant is required; and brandy when a stronger stimulant is indicated. The resort to farinaceous matters, predigested, must become greater and greater as our knowledge of digestion and its derangements waxes larger. It is not merely in the case of feeble infants that such predigested starch and milk sugar are indicated and useful; persons of feeble digestion require these soluble carbohydrates which they can assimilate. But to my mind an equally great matter is the feeding of persons acutely sick, and especially where there is pyrexia, who now are allowed to perish of inanition on the mistaken conviction that beef tea is a sustaining food. It is in the sick room that soluble carbohydrates have a great future before them.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. JUNE, 1886. NUMBER VI.

ORIGINAL ARTICLES.

RETAINED PLACENTA.

BY J. M. POSTLE, M. D., HINCKLEY, ILLINOIS.

On February 2, 1886, I was called to attend Mrs. S., from whom I obtained the following

History.—November 27, 1885, the patient tipped and fell backwards in a chair. When the accident occurred she was in her seventh month of pregnancy. For a week following the accident patient suffered considerable pain which gradually increased, and on December 4, labor pains began. A physician was now called, and in a short time a seven months' fœtus was expelled. The cord was very short and came away by itself in a few moments after the fœtus was born. The child was dead when expelled. It was acephalic, there being almost total absence of brain and cranial bones, and was disposed of by the attending physician. There was no hæmorrhage before and but little after delivery.

The patient's mother states that the uterus seemed considerably larger after the labor and did not contract down as in many other cases in which she had been in attendance. The patient remained in bed the usual time, and at its expiration, although not feeling well, was able to be around the house.

For six weeks after the miscarriage there was no sign of hæmorrhage, but two weeks before I was called hæmorrhage set in. It was small in amount, and continued so until three days before the date of my first visit, when it increased considerably, and on February 2, when I saw the patient her strength was failing, and the following was the

Status Præsens.—Pulse not above normal but soft and week. Temperature normal. Upon examination the uterus was found soft and flabby, cervix dilated. Several pieces from the margin of the placenta were removed; some of the remaining portion could be felt but could not be removed. An inter-uterine injection (carbolized solution) was given and a free dose of calomel to open the bowels was administered. Several full doses of quinine and fluid extract of ergot were given through the night.

February 3: Morning—Pulse 72; temperature 98.8°. Patient had rested well during the night. Ergot and quinine to be continued. An examination was made and more placenta was within reach and was removed. Uterus again syringed with carbolized solution. Afternoon—More placenta protruding from the cervix but could not be torn away. Uterus contracting, pains pretty severe. Evening—Pulse 78; temperature 100.6°. Patient restless. Calomel again administered.

February 4: Pulse 76; temperature 100°. Patient passed a good night. Contractions not so strong and pains less. Countenance bright and cheerful. Examination revealed the remaining portion detached, and in the external os, which was readily removed. Ergotine given to increase tonic uterine contractions. Seidlitz powder ordered.

February 5: Pulse 72; temperature 98.4°. But a slight show this morning.

February 6: Discharge slight in quantity, and pale like the lochial. Patient is stronger and is generally better.

From this time forward the patient went on rapidly to recovery. The pieces of the placenta, when they were removed, were found in an excellent state of preservation. In summary the following are the points in the case to which I wish to refer to particularly:

(1) The retention of the placenta for eight weeks without any evidence of decomposition.

(2) There being no sign of hæmorrhage for six weeks after the confinement.

(3) No septicæmia.

(4) The casting off of the retained placenta at the time that would have marked the full term of gestation.

In our works on midwifery accounts are given of the absorption of portions or even the entire placenta, or of their decomposition and consequent blood poisoning; and in almost all cases of abortion with retained placenta, the earlier the abortion the longer was the placenta likely to be retained.

In this case the retained portion must have been closely adherent to the uterine wall and had all its vascular connection well preserved. The uterine contractions must have been sufficient to close the torn vessels, but not to the extent to obstruct the placental circulation to any marked degree. The perfect preservation of the placenta prevented the occurrence of septicæmia. The process by which the retained placenta was prepared to be cast off must have gone on in it the same as if the fœtus had been carried to full term.

I report the facts of this case, because in my short practical professional experience they seem to differ from those given in the text-books.

REMOVAL OF SUPERFLUOUS HAIRS BY ELECTROLYSIS.

BY J. A. BACH, M. D., MILWAUKEE, WISCONSIN.

With some modifications of the method recommended by Professor Langley, I was able in a very aggravated case to obtain remarkable results. The apparatus used was a galvanic battery of from seven to ten cells, a sponge electrode (+), an electrode needle-holder (—) with attachment to make and break the current, a common steel sewing needle of fine quality, and two cord conductors. The moistened sponge electrode was applied at the nape of the neck and constantly held there, while the needle, properly fixed in its holder, was carefully introduced into the follicle along-side the hair; the needle always being partially introduced before closing the current, and the current broken before removing the needle, otherwise unnecessary pain as well as excessive tissue destruction was produced. After the introduction of the needle and closing of the circuit about ten to twelve seconds sufficed to so destroy the tissues about the hair follicle, that the hair could be removed without traction. The frothing or a wheal which appears around the mouth of the follicle while the current flows, generally indicates the time when the needle may be removed.

Case I.—Mrs. W. had for the last ten years been annoyed by a strong growth of hair about her chin and upper lip. She had tried all conceivable remedies, with the result of only increasing the growth by the stimulation which such remedies produced, so that when she came to me for relief, she had a beard that would have done justice to a man. It at first appeared almost hopeless, but as she was so very anxious to have the growth removed, I determined to undertake the case. The estimated number of hairs to be removed was fifteen hundred to two thousand, but I soon found that my estimate was too low, as the number far exceeded two thousand. At the first sitting, after clipping the hair with scissors, I took out about one hundred hairs, with an average allowance of ten seconds for each hair, and immediately afterwards washed that part with a weak solution of acetic acid so as to counteract the alkaline effect of the products of the (—) pole. On her return to the office the next day I found the reaction so very slight that I ventured to take out over three hundred hairs at one sitting with equally good results. The following days I even exceeded this number, so that in eight sittings every objectionable hair on her face was removed. In not one instance did I apply the needle twice to the same hair, and always applied it to fifty or more before I stopped to extract them, thus saving a great deal of time. After a lapse of about six weeks I found that about three per cent. had returned, which, after similar treatment, were also completely destroyed, so that now, after a lapse of over seven months, the lady's face is in a very fine condition, the scars not being noticeable.

REMOVAL OF THE LOWER JAW THROUGH THE MOUTH.

BY WM. L. AXFORD, M. D., CHICAGO, ILLINOIS.

Harry S., aged five years, was admitted to Saint Joseph's asylum in November, 1885. A weak and sickly child. The sister in charge of his room noticed that his face often swelled and the mouth became sore, but did not think it important enough to call my attention to him. About January 1, 1886, he had measles. A slow convalescence followed. My attention was first called to the child about February 1. Thin and emaciated. Pulse 120 to 130. Breath offensive. Glands under chin enlarged. Though the mouth I could see and feel the symphysis of the jaw denuded of periosteum but was unable to determine the amount of disease without hurting the child. The appearance of the face was peculiar—the lower portion enlarged out of all proportion to the head. There were no sinuses opening externally, a very unusual condition according to my experience with necrosed jaw-bones. I attempted by the use of tonics, wine and good food to bring the patient's general health up to a better condition before operating, but at the end of two weeks had gained nothing.

September 16: The child was anæsthetized and with my finger I explored the mouth, finding, much to my surprise, that the bone was bare up to the attachment of the muscles on the rami. I determined to attempt removal through the mouth without any cutting operation, believing that any loss of blood must prove fatal to my patient. The bone was now divided at the angle of the mouth with a pair of pliers, the mouth strongly drawn to the opposite side and as much of the body of the bone removed by the pliers as could be reached. A pair of sequestrum forceps was now applied to the remaining pieces, the rami and considerable of the body, and firm traction was made, while with my finger nail I stripped off the tissues remaining attached. After removing the first ramus I feared my patient was about to collapse, but the substitution of ether for chloroform very much improved the condition of the circulation. Not more than half an ounce of blood was lost and the patient soon rallied from the operation. Considerable reaction followed but on the third day I had the satisfaction of finding all fever gone, the pulse down to 116, and, with the exception of a swollen parotid on one side, my patient in a fair way to recover. A severe attack of diarrhœa came on which soon carried him off.

CLINICAL LECTURES.

TABES DORSALIS.

BY WALTER S. HAY, M. D., LL. D., CHICAGO, ILLINOIS.
Professor of Nervous and Mental Diseases, and of Medical Jurisprudence in Chicago Medical College.

REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY SPECIAL CORRESPONDENT.

GENTLEMEN: I desire to call your attention to a special form of spinal disease to which we have been led by former physiological and pathological notes. Remember, I told you that sections or disorganizing lesions of the posterior columns of the spinal cord lying upon each side of the posterior median fissure and between the posterior horns of gray matter resulted in a diminution, more or less, of complete tactile sensibility. I told you, moreover, that that constitued the characteristic anatomical change in a certain form of spinal diease, which may, occasionally, in its later stages, become almost incurable, but in its earlier stages, I think, if it were recognized promptly, further pathological changes might be prevented, and the disease prevented, if not cured.

A patient will sometimes present himself to you with the almost invariable history of *fatigue*. He has been, perhaps, as one of my patients, a colporteur, walking a great deal, distributing books; another a press-turner standing for ten hours a day; another a peddler, carrying a pack weighing one hundred and fifty pounds on his back for months, and even years; another a woman who had been working a sewing machine, making heavy clothing for six or seven years, requiring both feet to move the treadles. I cite these cases to illustrate the nature of the causes which lead to this form of disease—excessive physical labor, requiring an extraordinary muscular effort of the lower extremities, and therefore keeping the lower segments of the spinal cord, and, indeed, the whole posterior portion of the cord in a state of continuous activity and excitement.

Now, the nutrition of any organ, and its vascular supply are dependent upon, and are proportionate to, its physiological activity, and after this physiological activity by reason of pathological influences, we will have corresponding pathological changes in the vascularity and nutrition of an organ: we will have hyperæmia, and then hyperplasia of an organ. Now, the constant or long continued maintainance of the body in a direct position for long periods of time, or a long continued maintainance of the action of walking, without rest, necessarily invólves an increased activity in the sensory tracts of the cord; this involves an increase in blood supply, followed readily by hyperplasia, a proliferation of connective tissue cells, because the connective tissue is the avenue by which the blood-vessels pass into the various organs; it is the supporting membrane for the blood-vessels, hence we have nutrient changes in connective tissue first. This hyperplasia maintained for a long period of time undergoes secondary changes, assuming the form of induration, and we have as a result of the hyperplasia, pressure upon the true nervous elements, nerve fibrés, and nerve cells; but in view of the morbid changes, we will have this pressure upon sensory nerve tracks. This constitutes what I described to you as an irritating lesion, and this irritation will express itself in pain along the sensory nerve trunks and their branches wherever they may be distributed, hence we have as the first symptoms, resulting from the morbid changes which are indicated, pains in the lower extremities—pains very peculiar in character. You will find them described in text-books as electric pains. I have a dozen or more patients who have no knowledge whatever of the literature of medicine who give them the same designation, and have described them to me time after time as pains like shocks of electricity—pains violent enough to make the patient give an outcry sometimes, and so quick that they disappear with the outcry. These pains occur at irregular intervals, and appear in different localities; first is one muscle, then in another, or in an entire group of muscles. Very soon after the occurrence of these pains, but not at any regular period of time, especially for months, and even for years, a new symptom will manifest itself. Patient in walking involuntarily watches his feet. Sometimes the first intimation in this regard of any disturbance will be detected when he attempts to wash his face; he loses his balance or staggers, or in walking along the street looks at a sign board or number, he finds some difficulty in that he has to look before he leaps, but before he stops he experiences a peculiar sensation under the soles of his feet, which he describes as "a numbness" or a "pricking sensation," of some foreign substance in the soles of his feet. The pressure upon the sensory nerve tracks becomes more and more numb, and to such a degree, that the transmission of sensory impressions is intercepted, and we have first a development of dysthesia or paresthesia; sensations of peculiar numbness; all these give the patient a very peculiar and characteristic gait. Being unable to perceive distinctly the circuits upon which he treads, by means of sensibility in the plantar surfaces, he will throw his feet from the arc level more than is necessary for the step, and of course the foot falls back, and strikes the ground with the heel first. As he leans forward the sole of the foot will strike the ground with a slipping motion. He strikes the heel in front of his body, the sole of the foot strikes the ground with a slipping motion, and this condition necessarily impedes very materially the patient's ability to walk. It is not a paralysis, as I told you before; it is an ataxia resulting from insensibility; in other words, from anæsthesia. If you instruct your patient to exercise his muscles in such a way as to require no sense of touch to guide them, he will place his feet against any object and he has as much muscular strength in his legs as he ever had; there is no paralysis at all; no loss of motor power; there is simply interference with the manifestation of motor power by reason of the interference with the transmission of sensory impressions up through the spinal cord, this interference being in the shape of pressure or compression of sensory nerve tracks, resulting from proliferation of connective-tissue cells, of hyperplasia of connective-tissue compressing sensory tracks in the cord. This condition is essentially and slowly progressive; it will continue for many years; I think it will be found that the majority of cases will run along for fifteen or eighteen or even twenty years before it terminates their sufferings. A short time ago I received a letter from one of my patients who has been under my care for quite a number of years, and he alludes to some of his disabilities with a great deal of distress. This condition of anæsthesia expressing itself first in the soles of the feet, gradually advancing upwards, involves the perineum, the tactile organs, rectum and the bladder, and the anæsthesia in these organs, perhaps, is productive of the greatest distress to the patient. Defecation at first difficult, becomes after a while impossible. The gentleman to whom I refer writes me that he is obliged to have the rectum cleared of its contents mechanically; so with the bladder, the catheter has to be used. Microscopical examination will show that the posterior columns of the cord are usually shriveled, shrunken, changed in color; the white normal color of the cord becomes converted into a gray, ashy color, and the tissue becomes semi-translucent, and almost cartilaginous in hardness.

Various modes of treatment have been adopted for this affection, and there is scarcely a drug in the whole materia medica which has not been vaunted for its value and efficacy in the treatment of these cases, and the particular fact that such a multiplicity of drugs as have been used for this condition is the best evidence in the world that it is an exceedingly difficult affection or disease to treat successfully. There are some physicians who have reported quite a considerable percentage of cures. I think Dr. Hammond, of New York, reports seven cases cured out of ninety-five treated. Cases of this kind are almost incurable. In the large number of patients I have treated—and I have seen a great many—I can boast of but one cure, and that was affected by the administration of two drugs, which, by the majority of standard authorities, are regarded as worthless, and so characterized, namely, iodide of potassium and ergot. I gave my patient one drachm of Squibbs' fluid extract of ergot, three times a day, for seven months. Three years afterwards I saw him, and he was able to walk about with perfect facility. Without going into the details of the therapeutics, it is sufficient to say that the only drugs on which we can rely for the treatment of this condition are those which will diminish hyperæmia in the cord. The bromides belong to that class—ergot, iodide of potassium, etc.

With regard to the causes of this condition, I believe excessive fatigue will be found to be in the vast majority of cases, if not in all of them, the proximate cause, but what the ultimate cause may be, it would be purely speculation to attempt to define. One of the causes which by the best authorities is ignored, and which in my experience I have found to be one of the most active and efficient ultimate causes of the disease, is syphilis. I find several distinguished authorities assert that syphilis cannot be regarded as a cause; its relation is not satisfactorily determined, and it may be disregarded on that account; but in the large number of cases that have come under my observation from time to time, syphilis was plainly and conspicuously noticeable. The disease was described in 1831. Rhomberg described it more fully in 1839 and 1849, and very accurate descriptions of the symptomatology of the disease were given, and in 1851 it was called "locomotor ataxia," which is a very awkward designation, The term "tabes dorsalis" is much the better.

A case presents itself to you with lightening-like pains, which occur almost always in middle life, as locomotor ataxia rarely manifests itself after fifty years of age. I think the oldest case that has been reported was fifty-five years of age. I had one case eighteen; young girl. The period of life at which the disease develops is itself indicative of the proximate causes —this over-exertion for stimulation of the spinal cord. It is a period in life when such excitement of the cord is most likely to occur, because there is a greater amount of muscular effort during that period of life than at any other. The majority of the patients are men. Trousseau said he had in his life seen but three cases in females. I happened to have three women at one time, in one ward, at Saint Joseph's hospital, subject to tabes dorsalis or locomotor ataxia. However, the disease is not common amongst women; it is only occasionally. It is most frequent in men of apparently robust health and strong constitution.

I desire to impress upon you the importance of scrutinizing the history of such patients very carefully at the outset, and especially with reference to the pre-existence of syphilis. Although there may be no severe secondary syphilitic lesions found, yet there may be a history of a very small chancre which may not seem to be of any consequence, but these are just the causes likely to develop severe tertiary manifestations in the nerve structures, after many years have elapsed from the date of infection. In these cases you should use antisyphilitic remedies. I have been in the habit of putting such patients promptly upon some form of mercurials—most frequently the biniodide, in small doses, the thirty-third of a grain in conjunction with ergot, and the progress of the disease has been materially retarded by such a course. Rest is a very important and efficient factor in the treatment. The philosophy of this disease is that it results originally from excessive stimulation of the cord, and it would seem obvious that rest, exemption from all excitement and stimulation would be the most rational remedy—rest as near as possible in a horizontal position. What I have said to you on this subject is but a mere epitome, but sufficient I trust to enable you to distinctly make a diagnosis and to appreciate the principles of the treatment.

UTERINE PROLAPSUS.

BY DR. TILLAUX, PARIS, FRANCE.
Clinic at Hotel Dieu Hospital.
REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY OUR PARIS CORRESPONDENT.

Uterine prolapsus is the subject that I propose to speak of this morning, and it is one of the most common troubles that you will be called upon to treat, and one also that presents certain difficulties in diagnosis and also in treatment. The patient whom I take for an example, is the one you have seen in the wards. She is a woman of thirty-three, has always had good health, had her first menses at thirteen, and has ever since been regular. Three years ago she had a child, followed by a regular return to normal health except that she did what so many of our women do, that is, following an old rule, she got up on the ninth day, and went to her usual hard work about the house. You know my habit of impressing upon our patients the danger of getting up on the ninth day, as I consider it the commencement of most of the uterine diseases.

Three months after, the woman preceived that she had a small tumor protruding from the vagina. This tumor increased little by little until it became as large as a closed hand, and when she had walked a little distance during the day it would come out, giving her pain in the lower belly, trouble in urinating and a leucorrhœa that was quite abundant, caused by the excoriations that were produced on the neck of the uterus. You had only to look at the tumor to find that it was the uterus and that it was a case of what is called "falling of the womb," "prolapsus uteri" or "procidence uteri."

Let us study this trouble. First of all what is the disposition of the organs contained in the pelvis of a woman who has this prolapsus? As regards the vaginal walls, it is easy to understand that as the uterus descends it drags with it, first the anterior wall then the posterior. This descent going on, the walls are soon like a finger of a glove that you do not quite pull off, so that the moment that the womb has arrived at the end of its fall, the vagina forms a sort of sac which contains the uterus. Now, what happens to the bladder? The posterior face of that organ is so closely attached to the anterior face of the vagina and the uterus, that it cannot escape the influence of the traction, so that the vaginal walls that are dragged down by the uterus, drag in their turn the bladder. It is also turned inside out as it were, its summit is directed below, and it is part of the anterior wall of the tumor that you saw. As to the urethra it follows the bladder, and it is displaced so that the meatus urinarious in place of looking downwards, looks upwards, and the urine at the moment of micturition is projected on the lower part of the belly and causes excoriation of the parts. Now what happens behind the uterus? The peritoneum, as you know, adheres intimately to the posterior face of the uterus and it is prolonged down on to the superior third of the posterior wall of the vagina, so that it also is drawn down with the other structures. This *cul de sac* may contain some folds of intestines, which can be felt behind the uterus. The recto-vaginal sac doubles up much more easily, so that the rectum generally remains in its place, but in some cases it loses its suppleness and the anterior wall of the rectum is drawn forwards and down by the vaginal walls, so that the tumor contains, from before backwards: the bladder, the uterus, the peritoneal *cul de sac*, and sometimes a small portion of the rectum.

What are the influences that produce this prolapsus? It is caused by the relaxation of the uterine ligaments, and the augmentation in volume of that organ with the dilatation of the vulvo-vaginal canal—all these alterations are found after confinement;—add to these modifications of the genital apparatus, fatigue, and you have the cause of the trouble. Marion-Sims showed that it always begins by the anterior or the vesico-vaginal *cul de sac*.

Can you mistake it for other kind of tumors? Not easily, for once you see the orifice you will know that it is the uterus. A uterine polypus has no orifice and besides the vaginal *cul de sac* remains in cases of polypus and they disappear in the fallen uterus. This sign alone is of great value; so that your diagnosis is easy. There is another question that must be decided.

When I introduced the hysterometer into the uterine cavity I found that it measured thirteen centimeters. Allow one for the walls and you have a uterus of fourteen centimeters, and you know that a normal uterus will not measure more than seven centimeters in a multiparous woman, so that we must ask ourselves if this is an ordinary case of prolapsus, or if it is the trouble described by Hugier as a hypertrophic lengthening of the os uteri. The means of getting a correct diagnosis are these: You have only to try and see if you can reduce the tumor and in the case of ordinary prolapsus you will be able to do so, but in the other trouble you will not. You may make the patient suffer and that is all. In our present case the reduction was easy, and indeed, when she remains in bed, the uterus remains in its place. It is only when she walks about that it comes down and gives her pain; otherwise she has no suffering. We are then sure that it is a case of prolapsus and we can readily understand what has happened. When she was confined three years ago there was an incomplete rupture of the perineum; she got up on the ninth day and the uterus, not having time to return to its normal state, remained enlarged and finished by distending the vagina which could not offer any resistance; thus there was augmentation of the weight above, and diminution of the resistance below.

What can we do in such a case? The indications come from what I have said: First of all diminish the volume of the uterus, next increase its means of suspension. The first indication would not be enough as the uterus has lost its place, as it were, in the pelvis; the second is the one to attend to, but the various means of support do not hold,—an operation is wanted. What shall it be? Professor Le Fort proposed to make a partition in the vagina so as to have a sort of double passage. One can also practice vulvaorraphia which is intended to diminish the dimensions of the passage and give it back some resistance. The latter is the operation that I will perform. It will allow the woman to wear a pessary which by the narrowing of the vagina will remain in its place, and keep the uterus in position. I shall proceed as follows: I will make an incision of three centimeters long on each side of the posterior commissure of the vulva, and detach the mucous membrane to about two or three centimeters high, taking care not to wound the "bulbus vestibuli;" dissecting them from above downwards on each side and raising the flap of mucous membrane which will form a sort of apron. This I will cut off, although certain authors advise keeping it in place, but it has no advantages. Having done this, I then will bring the two bleeding parts together with Emmet's needles and then apply an antiseptic dressing to the wound. The knees of the patient will be kept together so as to prevent any drawing away after the operation.

I will order her to be kept in bed a month and I hope the uterus and its ligaments will renew their position and strength.

(Six days after the above operation the sutures were taken out, the union was found to be complete, and the perineum restored, without the patient having had the slightest amount of fever. She is now resting quietly and everything leads to a hope that she will be completely cured).

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY F. B. FLORENTINE, M. D., SAGINAW CITY, MICHIGAN.

HOSPITAL LARIBOISIERE.

SERVICE DE M. PROUST.

CASE OF PULSATIVE EMPYÆMA: ANTISEPTIC PLEUROTOMY; RECOVERY.

Clara M., aged twenty-seven, enters the Lariboisiere Hospital, January 25, 1885. Nothing of interest to note in her personal or hereditary antecedents.

January 5: The patient, who had already been affected for a few days with a cough, and feeling badly generally, after having been exposed, was taken with a severe chill, followed with a stitch in her side a few hours after. She was compelled to go to bed, and in spite of the persistence of pains, fever, and more or less dyspnœa, it was not before January 24 that she saw a physician for the first time, who advised her to enter the hospital.

January 26: The patient presents all the physical signs of considerable pleuritic effusion of the left side. The apex of the heart beating to the right of the sternum; nearly absolute dullness all over the left side of the thorax; the vibrations are abolished; complete respiratory silence, excepting in quite limited space, under the clavicle; slight diminution in the respiration; puerile respiration on the right side; slight dyspnœa; moderate pains in the side. Temperature 39° centigrade.

The next day thoracentesis was resorted to, and gave issue to two and one-half litres of serous liquid—somewhat suspicious. The patient felt considerably relieved at once.

February 1: The heart is no longer deviated. There is a dullness at the base of the chest, whispering with egophony and pectoriloquy.

February 10: The effusion increased. The heart is again displaced. The patient has a daily temperature of 39° to 40° centigrade. We prescribed the application of a large blister.

February 15: The patient is somewhat better, but the fever persists—more intense at night, and preceded by slight chills.

February 25: The local state is not modified. The effusion remains stationary. The heart is somewhat displaced, but the patient does not feel any respiratory inconvenience. The temperature remains elevated, with evening exacerbations.

March 5: The patient has grown very much weaker and looks very pale. She has also grown very poor, and has no appetite whatever. She coughs but little, and does not complain of any difficulty about her respiration. The physical signs remain the same.

March 15: Since yesterday the respiration has been difficult. The patient does not sleep well, coughs but little, but very painful, and she complains of a very disagreeable dryness in her throat. Every night she has slight chills, followed by fever. The thermometer registers 38° in the morning and 39.5° to 40° centigrade at night. The effusion did not increase in quantity, but at its level there is absolute dullness; there is no more egophony nor pectoriloquy. No œdema of the thoracic parietes.

March 24: Upon auscultating the patient on the posterior portion of the chest, we notice for the first time that the head applied at this level is slightly raised by the pulsations, and are considerably more perceptible with hands and isochronal with the cardiac pulsations. By examining the anterior portion of the thorax the heart seems to be crowded forward, its beatings are more energetic, and a great deal more obvious than in the normal state; the organ at the same time is slightly deviated to the right. M. Comby, who saw the patient in the morning, diagnosticated the case pulsative empyæma, with pericardio-pleuro-pulmonary adherences. The general state is the same as in the previous days.

March 27: Thoracentesis, practiced in the seventh intercostal space, gives issue to one and one-half liters of thick pus. We stopped at the moment of a violent act of coughing. After the puncture the pulsations, that were so well-marked, have completely ceased at the posterior portion of the thorax. Anteriorly, the cardiac beatings are hardly visible. The heart has retaken its normal position. There is no more dullness, except at the lower portion of the chest. We hear the vesicular murmur nearly all over the extent of the left lung. As predicted by M. Comby, there are no signs of pneumothorax discernible after the puncture.

March 28: The patient feels greatly relieved. She has no more bad spells of coughing, nor that disagreeable dryness in her throat. Temperature 37.5° centigrade. The vesicular murmur is still noticeable all over the chest, except at the base of the left side. Always no pneumothorax. The respiration, in both summits, is a little rude.

April 2: The pulsations re-appeared again in the posterior portion of the thorax, but only slightly perceived. The general state is not so good, and the thermometer has risen to 39° centigrade.

April 10: Thoracentesis that gives issue to eighteen hundred grains of pus. The relief is immediate, but not so complete as that felt after the two first punctures. The pulsations have again disappeared.

April 25: The patient is growing weaker every day. In spite of the punctures she has a chill every night, followed by quite an elevation of the temperature. The beatings exist again quite well marked. We thought for the first time of making a large opening to the purulent focus. Upon a careful auscultation of the summits we discover a slight rudeness of the respiration, and a few fine râles, but, however, upon the examination of the sputa, made three different times, for bacilli, we obtained negative results.

May 1: Antiseptic pleurotomy was carefully performed by M. Gaissard. The incision made in the sixth intercostal space, and slightly towards the back, gives issue to about one liter of pus. By introducing the finger through incision into the cavity we notice that its walls are covered by soft false membrane. The finger arrives at the superior portion of the diaphragm, but does not reach the base of the lung. Cleansing made with four liters of borated solution, and two liters of solution of chloride of zinc, at three per cent. Introduction into the wound of three drain tubes, *enflûte de Pan*. Dressings strictly according to Lister's method. About the end of the operation the patient had a slight syncope.

May 2: The first dressing is removed and redressed with the greatest care, without cleansing the wound. The patient feels quite relieved. The temperature that had risen to 40° centigrade the preceding days is now fallen to 38°.

May 9: The third dressing, without washing the wound. The temperature oscillates between 37° and 38° centigrade. The patient's appetite is returning, and she is also gaining in strength slightly.

May 15 and 21: Fourth and fifth dressings, always without cleansing the wound. The general state is excellent.

June 5: The sixth dressing. Two of the drain-tubes are withdrawn.

June 13: Seventh dressing. We think of being able to withdraw the last tube.

June 20: The patient tonight had a chill, followed by an elevation of temperature. We replaced a tube without difficulty, and a small quantity of pus discharged. The dressings are repeated every eight days, always without cleansing the wound. The suppuration is scanty, without odor. The patient is again doing well; her appetite is quite good, and she is able to get up every day without much inconvenience.

August 13: We again cleansed the cavity of the wound with

in view to hasten
ver sixty grammes
tes commenced to
. The dressings are
is as yet a little sup-
h iodinized solution.
last tube was finally
v days. The thoracic
oint, but this does not
ie feels splendidly, and
extent of the thorax.
s one of very great inter-
affection, or at least quite
nas published on this sub-
i one of the most interesting
f November, 1883, has given
history of the questions and
wn pertaining to it. Of four
two have already been studied
founding himself upon the phe-
the affection in the case in ques-
lusions that are not in every way
pulsations would be indexes not
on of the liquids, but also to the
ie to pulmonary chlorosis and gen-
ionary fusion. Also is the affection,
pable of being cured; and all thora-
of pulsative empyæma would not be
pneumothorax, of which we readily
y. Now, our patient did not present
orax after any of the punctures, as
y, who was present, and besides, the
ered in a most absolute manner—grace
otomy. It might be becoming, therefore,
terpretation for the pulsation that accom-
risy developed in the neighborhood of the
necessary in all cases to know that the
leurisies is not always necessarily fatal.—
., in *La Franc Medicale.*

ANÆSTHESIA BY THE INHALATIONS OF US OXIDE OF NITROGEN UPON DIVERS F THE ECONOMY.

---

nes of Drs. Jolyet and Blanche in 1873 demon-
æsthesia produced by the inhalation of pure
of nitrogen, according to the method of dental
ways accompanied by an asph[illegible]ed state suffi-

cient of itself to produce anæsthesia, as the blood does not contain over three or four per cent. of oxygen.

The asphyxia concomitant of protoxiazotic anæsthesia, is exceedingly dangerous, assuring myself thus in a medical point of view. It is thus that I observed: (1) A case of miscarriage, with death of the fœtus, at four and one-half months' pregnancy; (2) Apparition of chlorotic symptoms upon a young girl *en formation;* (3) Re-appearance of epileptic symptoms upon a young man who had been exempt from them for many years; (4) The appearance of albuminuria and hydropisia in a case of mitral insufficiency; (5) Diabetes mellitus observed twiçe upon the same person, following the insensibility produced by nitrous oxide.

This last observation put me in mind to research as to whether or not the inhalations of laughing gas, dangerous to certain diathetic or physiologic states, as I just indicated, does not bring, on the sound individual, certain transient disorders of the divers grand functions of the economy. Being established that glycosuria is a consequence of hyper-glycohæmia that supervenes, as has demonstrated Dr. Dastre, in the asphyctic state, induced, me to carry my researches on that side.

I have placed myself in experience, after having previously assured myself that I was not glycosuric. Two hours after two successive anæsthetics, at a few minutes of intervals, my urine contained already one and sixty-five hundredths grams of sugar per liter; six hours after there were eighteen and forty hundredths grams; the third day, three and ninety-five grams; at last, on the fourth day, all trace of sugar had disappeared.

I have then experimented on the dog, and I found in most cases glycosuria that varied an hour after two successive anæsthesia between one and three hundred and fifty-five thousandths grams to fourteen and two hundrêd and eighty-five thousandths grams of glycose per liter. I said in most cases, in effect, on one animal I did not observe any signs of glycosuria, but that after searching for the physiological condition of the animal, I discovered that he had been fasting since the previous day—a condition in which, as has been demonstrated by Dr. Chas. Bernard ("Lecons sur la diabete," page 76) that hyper-glycohæmia is not followed by glycosuria.

I wished then to make more accurate researches upon the variations of the quantities of sugar in the blood, by employing the classical procedure of Dr. Bernard. In all my experiments I have constantly seen the protoxiazotic anæsthesia march in pair with hyper-glycohæmia, well marked; in fact, a veritable shower of sugar instantaneously taking place in the blood that accumulated, in certain experiments, up to three grams of sugar of glucose per liter, and in its physiological state the blood rarely contains one and five tenths grams per liter.

I wished then again to study the modifications caused by this mode of anæsthesia in the physical phenomena of the respiration, arterial pressure, and the heart's action.

The modification produced in the physical phenomena of the respiration varies with the kind of animals that are experimented on.

With man, the respirations become more ample without changing the rhythm.

Upon the rabbit, at the very beginning of the inhalations, respirations become more frequent and fuller, and generally moderate at the moment of the anæsthesia, without stopping suddenly.

The most remarkable phenomena are produced upon the dog, in which the respiratory movements gradually increase in frequency and fullness up to the moment of the anæsthesia, when really the respirations become almost panting; then a sudden stop is produced, more or less prolonged, and sometimes mortally.

Just as with the respirations, the arterial pressure does not undergo the same variations upon animals of the same species. Upon the rabbit it remains stationary, or slightly lower. Upon the dog it rises more and more, and then remains stationary at the moment of the anæsthesia.

The pulsations of the heart submit to the same influence upon all animals. At the beginning of the inhalations there is an augmentation of the frequency, then just preceding the anæsthetic moment, the heart relents, the systoles are strong and spaced, even an arrest of the action of the heart, more or less prolonged, may take place. This abatement of the heart's action, with the maintenance of the somewhat elevated arterial pressure, persists a long time, even after the awakening of the animal.

The augmentation of the arterial pressure, especially remarkable on the dog, seems to be caused by the agitated state of the animal.

The relenting of the systolic movements of which the strength is augmented, is certainly due to the constant action upon the nerves *d'arrêt* of the heart, because it does not appear upon animals previously atropinized.

Thus are the results of my researches, touching the influence exercised by anæsthesia produced by the inhalation of pure gaseous oxide of nitrogen, upon three great functions of the economy, namely, the *hepatic function*, the *respiratory function* and the *cardiac function*.

We see that this method of anæsthesia is not only never harmless, but on the contrary, constantly brings functional troubles that may cause serious dangers, principally in the physiological or diathetic states that I have heretofore pointed out.—Dr. Lafont in *La France Medicale*.

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

REPORTED BY A. J. HOSMER, M. D., ANN ARBOR, MICHIGAN.

FISTULA IN ANO.

Mrs. S. E. S., aged thirty-eighth. Admitted to hospital October 10, 1885.

History and Present Condition.—Fourteen years ago a painful swelling, which was regarded a boil, appeared in the perineum and broke spontaneously. The swellings recurred at intervals, but no special treatment was given as she had been subject to boils. The recurrences of these abscesses continued for five years, and then ceased, and for eight years (until January, 1884) there was no appearance of the trouble but the opening did not heal. It then began again in the same manner as before, and broke seven times in three months. She had a severe attack of ague at the time when these gatherings again appeared. She has had one child since the beginning of this trouble.

At present there are two marks of recent sores which discharged and refused to heal until two months ago when they last broke. Since then they have not discharged and have been free from pain. The smaller of the two cicatrices came several years after the first. The two sores appear to be perfectly independent of each other. Upon examination the perineum presents to the touch a cord-like feeling. The general health is good. She has had no trouble from boils since the formation of these perineal abscesses.

Examined by Dr. T. J. Sullivan who diagnosed fistula in ano.

October 12: Operation in ward before section of class. Fistula divided.

October 15: Marked and rapid improvement. Course of fistula and incision healing.

October 17: Patient walking about the wards. Wound nearly healed.

October 20: Dismissed cured.

UN-UNITED FRACTURE (COLLES'S) OF RADIUS.

Mrs. L. R., aged thirty-eight. Admitted to hospital November 17, 1885.

History and Present Condition.—Fourteen weeks ago, the patient was thrown from a carriage by a runaway horse, and had her right wrist broken and dislocated. She was seen by a physician within ten minutes of the accident. The fracture was put up in splints; after six weeks these were removed.

At this time a marked deformity was noticed. The hand was drawn over toward the radial side of the arm. The hand can now be easily placed into its normal position, but will not remain there. The movements of the wrist joint are almost perfect. There is no pain, and the chief inconvenience is that she cannot flex her fingers.

November 19: Patient presented before the class. Examination shows the stiffness of the fingers to be due to partial ankylosis in the phalangeal joints, which may be overcome in due time by passive movements. The fracture is evidently very near the location of Colles's fracture. It is probable that the surgeon did his work well, but that nature has failed to perform her part of the contract. The only possible operation here would be resection, and this would not be justifiable in this case, there being no positive assurance of success. More, there is no immediate necessity, as by the aid of exercise and time she probably may still obtain a useful hand.

Dismissed. No treatment.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING APRIL.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of April (four weeks ending May 1, 1886), as follows, the diseases being arranged in the order of their greatest prevalence:

Neuralgia, rheumatism, bronchitis, consumption of lungs, intermittent fever, influenza, tonsilitis, pneumonia, erysipelas, remittent fever, diarrhœa, inflammation of kidneys, inflammation of bowels, whooping-cough, scarlet fever, diphtheria, cholera morbus, typho-malarial fever, dysentery, puerperal fever, inflammation of brain, measles, cerebro-spinal meningitis, membranous croup, typhoid fever (enteric), and cholera infantum.

For the month of April, 1886, compared with the preceding month, the reports indicate that intermittent fever, inflammation of kidney, and cholera morbus increased, and that pneumonia and tonsilitis decreased in prevalence.

Compared with the preceding month, the temperature in the month of April, 1886, was much higher, the absolute humidity and the day ozone were much more, the relative humidity was considerably less, and the night ozone was more.

Compared with the average for the month of April in the eight years, 1879 to 1886, measles, pneumonia, remittent fever, intermittent fever, diphtheria, consumption of lungs, and scarlet fever were less prevalent in April, 1886.

For the month of April, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature was slightly higher, the absolute and the relative humidity were more, the day ozone was about the same, and the night ozone was slightly less.

Including reports by regular observers and others, diphtheria was reported in Michigan in the month of April, 1886, at forty places, scarlet fever at thirty-one places, typhoid fever at four places, and measles at nine places.

Reports from all sources show diphtheria reported at one place less, scarlet fever at twelve places less, typhoid fever at one place less, scarlet fever at twelve places less, and measles at one place more in the month of April than in the preceding month, March, 1886. Henry B. Baker, M. D., Secretary.

Lansing, May 6, 1886.

EDITORIAL PERISCOPE.

REORGANIZATION.

At the meeting of the Michigan State Medical Society, two years ago, at Grand Rapids, it became painfully obvious to all unbiased and unprejudiced members, that certain changes should be made in the judiciary and executive portions of its constitution. In a certain period of its history it may have seemed necessary to have a standing committee empowered to investigate, (?) convict, and sentence an accused without as much as notifying him of the character of the charge preferred, or giving him the least possible opportunity to make a contre-statement or to make a defense; but in this day when the organization has reached, through the intelligence and culture of its members, the position of a scientific association, such centralization of power is not needed.

That this outlived and objectionable feature could be expunged, and certain other changes made, that the late rapid growth of the Society has made necessary, a committeee was appointed to whom was referred the subject of reorganization. This committee made its report last year, at the meeting held at Port Huron. The contents of that report was a surprise. In it is stated that: "Rival interests have sprung up, partyism has appeared, and personal ambition has played its role. These things have, it is believed, sometimes led to undue and unprofessional efforts to control the Society." It is not strange that, after losing power, the corneal opacity of the "ring" should clear away, and its methods of "controling the Society" become self-discernible; but it is surprising that its acts should be openly challenged in a meeting of the Society, when the Judiciary Council one year before refused membership to one, who, in his boldness, pointed out the "ring element" of the Society, but with much less damaging reflections, than the acrimonious declarations contained in this report.

The committee then proposes to "prevent a recurrence of these experiences," and recommends as the means of accomplishing this good object, the creation of

THREE CLASSES OF MEMBERS.

"(1) *Delegate Members.*—These are to be chosen by the *several local societies* in the State. The *right* to vote, and consequently the government of the Society, are vested exclusively in them.

"(2) *Elective Members.*—These are reputable physicians residing anywhere in the State, and may be elected by a majority vote, on recommendation of the Commitee on Admission.

"(3) *Permanent Members.*—These to consist of all present members, of all who may have served as delegate members, and of all elective members."

What does this mean? That every one of the present members of the Society waive all rights in the government of the Society. That any large local society can control any meeting of the Society, for there is no limit to the number that can be delegated. That membership of any local society is the only qualification necessary,—that the endorsement of two honorable physicians already members, the recommendation of the Committee on Admission, and the adoption of this endorsement and recommendation by the majority vote are not sufficient to qualify a "reputable physician" to take part in the government of the Society. This country is too democratic in all its customs, and particularly in the matter of the centralization of power, to suppose that the members of a society of a profession that above all others teach freedom, will waive in the government of that society, the right of *suffrage*, "the one crowning franchise of the American people!"

Section 9 provides for a council consisting of nine members. The decisions of said council on all matters referred to it by the Society (these matters referred without discussion) shall be final. In the body politic of this country there is no body constituted with such power. Here is a body to which all questions pass without previous discussion, which has the power to make its own rules of action, and thus can rule that it will take no testimony, that it will receive no defense, that it will grant no hearing. Upon such rulings it can make its decision, from which no appeal can be taken. A more perfect plan to outrage justice cannot be consummated. From the decisions of the Supreme Court of the United States there is no appeal, but this court receives evidence and hears arguments. Not so with the Judicial Council of the Michigan State Medical Society. It does not need to trifle away time upon such considerations. Two years ago this immutable council reported a decision, upon which it took a year to decide, without even informing the accused of the nature of his offense. Individuals of this irreversible body being thus charged, granted the accusation. The perpetuation of a body that from the authority vested in it can thus debase and stultify its intended exalted position, is not desired, and such was the freely spoken sentiment of the members two years ago. Such a star-chamber court can be spared. Its decisions show that it can never reach the dignity of a high court of law; and, just as long as the Society authorizes such power and appoints members to exercise such privileges, it is an evidence that it bids and has a want for such dark-aged trials from a council of justice.

The Society wants but one grade of membership; and, certainly does not want to lower its standing to the level of a political convention, to which "pledged" delegates are yearly sent to control its actions, elect its officers and *vote* any change in its rules. Let it be removed, as far as possible, in the structure of its organization, from those which characterize a nomination caucus. The politics of the Society does not need to be fostered, but provisions to accommodate the greatly increased legitimate, scientific work of the Society are wanted. A longer time for the meeting will meet these.

In a society where the body are general practioners, the section plan will not be found profitable or popular.

AMERICAN MEDICAL ASSOCIATION.

The thirty-seventh annual meeting of the American Medical Association was held at Saint Louis from the 4th to the 7th of May inclusive. The results of this meeting were looked forward to with some anxiety by the profession in general. Seeds of dissension were sown at its last meeting, which were so well nurtured during the year as to cause alarm for the success of the International Medical Congress which meets next year. It was feared that the controversy which has produced this discord and which has been agitated for a year, would be brought up at this meeting and create an issue which would imperil the honor of the whole American profession.

The harmony, good feeling and enthusiasm of the meeting show to what a degree forbearance and conciliation are practiced, and how personal feelings are yielded to the common good by men who have an inalienable devotion to their profession.

The president, Dr. William Brodie, of Detroit, delivered his address in that forcible style that characterizes the man. The important character of the work done by the Association was well exemplified by selections which he took from its "Transactions." The good accomplished through it for the elevation of the profession shows that the American Medical Association has been and is yet a great power for the good of the profession. Dr. Brodie is entitled to the just praise which he receives for the many ways by which he so cleverly aided in bridging the breach that was made last year.

The Committee on the Preliminary Organization of the Ninth International Medical Congress made a brief report, in which was stated that after mature deliberation and several full meetings of the Committee, they had adopted the "Rules" necessary for the organization and business of the Congress, appointed the general officers of the Congress, the chief officers of the sections, and a local committee of arrangements at Washington; and as under the rules, the President, Secretary-General, Treasurer, and Chairman of the Finance Committee of the Congress, and the Presidents of the several sections constituted an Executive Committee of the Congress with full power, all the further business and management of the Congress, including the filling of any vacancies that might now or hereafter exist, had been tranferred to such Executive Committee. This report was adopted without any evidence of dissension, and proved that the men who compose the medical profession in this country "can rise above their personalities in the great question of medical science and national hospitality."

AMERICAN PUBLIC HEALTH ASSOCIATION.

The preliminary circular of the fourteenth annual meeting of the American Public Healty Association has been prepared. This meeting will be held at Toronto, Ontario, October 5 to 8, 1886.

The executive committee have selected the following topics for consideration at the meeting:

(1) The disposal of the refuse matters of cities and towns.

(2) The condition of stored water supplies, and their relation to the public health.

(3) The best methods and the apparatus necessary for the teaching of hygiene in the public schools, as well as the means for securing uniformity in such instruction.

(4) Recent sanitary experiences in connection with the exclusion and suppression of epidemic disease.

(5) The sanitary condition and necessities of school-houses and school-life. (See Lomb prize essays).

(6) The preventable causes of disease, injury, and death in American manufactories and workshops, and the best means and appliances for preventing and avoiding them. (See Lomb prize essays).

(7) Plans for dwelling houses. (See Lomb prize essays).

All persons who propose to present papers at the next meeting of the association will be governed by the following order, enacted by the executive committee at Washington, District of Columbia, December 7, 1885: "That all papers hereafter presented to the association must be either printed, type-written, or in a plain hand-writing, and be in the hands of the secretary at least twenty days prior to the annual meeting."

This order will be strictly enforced, and no paper will be read at said meeting that has not been received, examined, and approved by the executive committee.

Invitations extended to individuals to prepare papers for the association do not imply their acceptance by the committee, merit alone determining that question. Papers that have been published will not be received.

The local committee of arrangements at Toronto, Ontario, have already actively begun the work essential to a large and successful meeting. In addition to the usual work incident to such an undertaking, they will extend invitations to foreign sanitarians, and secure such transportation facilities as will probably insure a good representation from abroad. Communications regarding matters of transportation or of a local character should be addressed to Peter H. Bryce, M. D., chairman local committee of arrangements, Toronto, Ontario.

The coöperation of all persons interested in the public health, or in any subject allied to sanitary science, is respectfully solicited. A circular giving full and concise information regarding local matters, programme, transportation, etc., will be issued in due season before the meeting.

Mr. Henry Lomb, of Rochester, New York, who is already well known as a public benefactor through the prizes which he gave last year for the best essays on certain sanitary subjects, offers for the present year the sum of seventeen hundred and fifty dollars to be awarded as prizes on the following subjects, as per conditions mentioned elsewhere:

(1) The sanitary conditions and necessities of school-houses and school-life. One prize, $500.

The object of the essays must be to furnish the most complete paper possible, embracing as far as may be all the details allied to the subject.

Committee of Award.—Dr. E. M. Moore, president State Board of Health, Rochester, New York; Medical Director Albert L. Gihon, United States Navy; Major Charles Smart, Surgeon, United States Army; Professor C. A. Lindsley, Secretary State Board of Health, New Haven, Connecticut; Dr. J. T. Reeve, Secretary State Board of Health, Appleton, Wisconsin.

(2) The preventable causes of disease, injury, and death in American manufactories and workshops, and the best means and appliances for preventing and avoiding them. One prize, $500.

Under this head, the conditions and necessities of the American mechanic are to be especially considered, and the thorough consideration of a class will be regarded of more value by the judges than a superficial review of the whole field. Original investigations will weigh much in awarding the prizes, while compilations from existing literature or foreign statistics will not find favor with the committee of awards.

Committee of Award.—Dr. Granville P. Conn, President State Board of Health, Concord, New Hampshire; Dr. John Fallon, Member State Board of Health, Lunacy, and Charity, Lawrence, Massachusetts; Dr. Stephen Smith, New York City; Crosby Gray, Esq., Pittsburgh, Pennsylvania; Dr. C. W. Chancellor, Secretary State Board of Health, Baltimore Maryland.

(3) Plans for dwelling houses.

(*a*) A plan for a dwelling house not to exceed in cost, exclusive of cellar, eight hundred dollars. Prizes: First, $200; second, $100; third, $50; fourth, $25.

(*b*) A plan for a dwelling house not to exceed in cost, including the cellar, sixteen hundred dollars. Prizes: First, $200; second, $100; third, $50; fourth, $25.

Accommodation to be provided for families consisting of five persons.

Committee of Award.—Major John S. Billings, LL. D., United States Army, Washington, District of Columbia; Colonel George E. Waring, Junior, Civil Engineer, Newport, Rhode Island; Dr. E. M. Hunt, Secretary State Board of Health, Trenton, New Jersey; Dr. J. H. Raymond, Brooklyn, New York; Professor Charles N. Hewitt, Secretary State Board of Health, Red Wing, Minnesota.

SPECIFICATIONS REGARDING PLANS FOR DWELLING HOUSES.

The features which will have special weight with the Comcommittee of Award will be,—first, ventilation; second, drainage and other sanitary appointments; third, convenience of arrangements. Each design to be represented by the following drawings:

(1) A plan of the principal story.

(2) A plan of second story (if present).

(3) A longitudinal section.

(4) A front elevation, and drawings of such details as may be required to illustrate any peculiar features of the design. The drawings are to be made all upon one sheet of paper, and comprised within a rectangle of seventeen and one-half by twenty-four inches.

They are to be made at a uniform scale of four feet to the inch, except those representing detail, and are to be made by lines, in India ink, without color or washes. Shading, if any, is to be obtained by India ink lines.

The drawings are to be accompanied by a concise, clear description of the arrangements and materials of construction, together with a detailed estimate of the cost of construction, which is to comprise masonry work, plastering, iron work, carpenter work, roofing and painting, plumbing work, sanitary appointments, and other required work and materials, and contingent expenses required to render the building ready for occupancy. The estimate to be given for each of the kinds of work above named separately. The estimates to be made in good faith, from trustworthy data, and to be based upon the present market prices of material and labor in Albany, New York. The prices made use of to be given in full detail to enable comparisons to be made for different localities, plumbing to be based on supposed use of pump, and estimate to cover so much of pipes and drains as will be within the walls.

The object of this competition is to secure a general statement of the whole question of the best arrangements, both in economical and sanitary points of view, for housing the working classes.

The name of the author is not to appear upon the drawings, or upon anything accompanying them.

Each drawing is to be marked with a selected word or sentence, used as a motto to distinguish the design from others. This motto, written on paper, together with the author's name, is to be enclosed within a sealed envelope, and this sealed envelope is to be enclosed within a second envelope, sealed and endorsed, with the word or motto, only, that is placed upon the drawing.

Each design, together with the description and estimate, is to be enclosed within a tube of metal or very stout paper—the tube not less than two inches in diameter—and sealed and forwarded to the Secretary.

Conditions.—All essays and plans for the above prizes must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, New Hampshire, on or before August 15, 1886. Each essay must bear a motto, and have accompanying it a securely sealed envelope containing the author's name and address, with the same motto upon the outside of the envelope.

After the prize essays and plans have been determined upon, the envelopes bearing the mottoes corresponding to the prize essays or plans will be opened, and the awards made to the persons whose names are found within them. The remaining envelopes, unless the corresponding essays or plans are reclaimed by authors or their representatives within thirty days after publicataion of the awards, will be destroyed unopened by the Secretary.

The Committees of Award are empowered to reject all papers and plans, if in their opinion none are worthy of a prize. The essays and plans awarded the prizes are to become the property of the American Public Health Association.

None of the members of the Committees of Award will be allowed to compete for a prize on the subject upon which they are to pass judgment.

The awards will be announced the first week in October, 1886, at the annual meeting of the American Public Health Association.

It is intented that the above essays shall be essentially American in their character and application, and this will be considered by the judges as an especial merit.

Competition is open to authors of any nationality, but all the papers must be in the English language.

While the privilege of competing for the Lomb Prizes is open to all persons, it should be remembered that the highest standard of excellence will be required to win.

Per order Executive Committee.

IRVING A. WATSON, Secretary.

CONDENSATIONS.

BIDART claims that he can predict the sex of the child correctly ninety-two cases out of a hundred by counting the fœtal pulse rate. Over one hundred and thirty five beats a minute means a girl; less than one hundred and thirty five, a boy.

IN the *American Journal of Obstetrics* is reported a case of a lady of seventy who had menstruated with perfect regularity since she was sixteen, except when she was pregnant, and for a short time after she was forty-five. Her daughter, aged fifty, has yet a regular monthly flow.

THE announcement of the Michigan State Medical Society comes too late to be printed in this number. The titles of twenty-seven papers are given which from their nature and authorship, insure an instructive meeting. The address of the President, E. P. Christian, will be on "The Medical Art in Its Relations to Christian Civilization and to Public Intelligence," and not "to Nobler Intelligence" as printed in the programme.

SPRAINED JOINTS.—A paper on this subject was recently read before the Herveian Society, London, by Dr. Owen who urged that a sprained joint should be dealt with on the same principles as those which guide the surgeon in his dealings with a fracture at or near the articulation. He advocated rest and compression for the joint, and maintained that if only the parts be at once enclosed within a plaster-of-Paris casing, with even compression, effusion will be prevented and pain allayed.

CHOLERA KEPT AWAY.—It is the opinion of Dr. John B. Hamilton, supervising surgeon-general of the Marine hospital service, that not considering unlooked for conditions, Asiatic cholera may be kept away from this country as easily as it was last year. The inspection of immigrants at foreign ports of departure has already been put in operation, and the domestic quarantine which he believes will prove efficacious, will be put into operation at the first moment it seems to be advisable.

INSTANTANEOUS PHOTOGRAPHS OF HEART IN MOTION.—W. G. Thompson presents to the profession a method of studying vital processes which may be hoped will add much to our knowledge of these, and will bring us to a better understanding of some points in physiology. He has made photographs of the heart *in situ*, while in motion, showing its form and relative size in systole and diastole. Series of photographs during the muscular contraction enable one to study the various modifications of form which occur in normal action and under various stimuli. Similar studies may be made of stomach, intestines, uterus, etc.

FAITH CURE and the "ethical nature of disease" were investigated by Dr. James Hendric Lloyd, of Philadelphia. Some wonderful cures of cases where the patients suffered "every thing" were found to be cases of hysteria. One, Captain R. Kelso Carter, when questioned as to his recovery from "fatal heart disease" writes: "Doubtless some healed ones would innocently submit to a medical examination. I would not, believing it to be dishonoring to my great physician. I give my testimony and say Jesus cured me. I do not propose to submit to tests to endorse God's notes of promise by the signature of men."

HIGHER STANDARD.—Dr. John H. Rauch, chairman of the section of the American Medical Association on State Medicine, stated in his address, that state medicine could be defined as the "Connection of the state with that branch of science which relates to the prevention, cure, and alleviation of the diseases of the human body." He insisted on the elevation of medical education, and asked the association to put itself on record as favoring the extension of the term of study to four years, and of the attendance upon lectures to three full courses with hospital and clinical experience, as requirements to medical graduation.

THE American Surgical Association elected the following officers for the ensuing year: President, Hunter McGuire, M. D., Richmond, Virginia; Vice-Presidents, T. F. Prewitt, M. D., Saint Louis, and J. W. Gruley, M. D., New York; Secretary, J. R. Weist, M. D., Richmond, Indiana; Recorder, J. Ewing Mears, M. D., Philadelphia; Treasurer, P. S. Connor, M. D., Cincinnati. Council: Drs. Hunter McGuire, John S. Billings, L. McLane Tiffany, R. A. Kinloch, and Moses Gunn. The following members were elected: *Honorary*—Sir William MacCormac, Professor Henry J. Bigelow; *Active*—Drs. H. H. Mudd, Saint Louis, and Joseph Ransohoff, Cincinnati.

THE MICROBE OF DYSENTERY.—Drs. Condorelli-Mangeri and Aradas made a special study of an epidemic of dysentery occurring at Catane and believe that they have discovered the specific microbe of this disease. The microbe is a bacillus, and is found usually in long chains. It was constantly found in the dysenteric stools, and also in the air of the hospital wards in which the patients were received. The same bacillus was also discovered in the water of two wells from which the inhabitants of the village had drawn their supply. Experiments on animals also tended to confirm the belief that this microbe was the cause, or accompaniments of dysentery.

SACCHARINE is a substance lately discovered by Professor Falberg, which is two hundred and thirty times sweeter than sugar, and is obtained from coal-tar. This substance is of importance to the medical practitioner, as it can be used to sweeten and make palatable the food of persons who, suffering from diabetes are not permitted to use sugar. In appearance it resembles flour, but it is denser and is freely soluable in hot water. To determine whether this substance could be taken without detriment to the person, experiments were made on dogs, and eighty grains were administered daily to a dog for some time without the slightest ill-effects.

THE American Medical Editors' Association met May 3, at Saint Louis, at the Saint Louis Club. The President, Dr. H. O. Walker, of Detroit, gave the annual address. The officers elected for the next year are: President, Dr. J. V. Shoemaker, Philadelphia; Vice-President, Dr. Dudley S. Reynolds, Louisville; Secretary, Dr. William Porter, Saint Louis. Dr. Walker was empowered to appoint a committee to invite the editors of the Old World to attend the next meeting. The banquet given by the Medical Press and Library Association was a grand and happy entertainment. Dr. I. N. Lore, the toast-master, presented quotations from Shakespeare. They were numerous and the responses were especially fitting and brilliant.

HYDROPHOBIA.—At Guy's Hospital a case of hydrophobia was recently treated with chloral hydrate in large amount, administered by the rectum. The fatal termination adds another case to the number in which this remedy failed to do more than to relieve symptoms. It was hoped at one time that it would prove a valuable remedy, but like other drugs, such as curare, cannabis indica, aconite, etc., it has not fulfilled the high expectations which were formed of it. Pilocarpine is still *sub judice*, and will doubtless undergo a more extended trial. At present the medical world is watching with some anxiety and every wish for success, the inoculation of patients with attenuated virus as carried out by Mr. Pasteur, hoping that a means may be found of curing or preventing the disease.

Buisson's Treatment of Hydrophobia.—Centres have been established in various parts of London for carrying out M. Buisson's treatment of hydrophobia. The wound is washed with a strong solution of ammonia; the patient has a daily vapor-bath at a temperature of 42° to 48° Reaumur, with a view to producing profuse perspiration for seven consecutive days, and draughts of hot infusion of borage also with a view to promoting the diaphoresis. Dr. Buisson is said to have cured himself after the development of the symptoms of hydrophobia. He and his disciples regard the method as an infallible preventive of hydrophobia and as an equally certain cure if begun on the first day of the developing disease: on the second day its effect is less certain, and later it has no effect in staying the course of the malady.

Croupous Pneumonia.—In this disease there is no septic infection at work as a cause; and in a thesis on "Animal Heat in Disease," Dr. C. R. Illingworth, in the *Medical Press and Circular*, calls attention to this point. We have simply to deal with a stasis of the blood in the pulmonary capillaries, due to increase of the fibrinous elements of that fluid. What is required in proceeding upon this theory is a medicine to render the blood more fluid, so, that, firstly, the acutely congested central organs may be relieved by a more perfect peripheral circulation; and secondly, the local stasis obviated if possible, before extensive effusions of plastic lymph has taken place with its consequent coagulation in the air cells, and consolidation in red hepatization. He recommends salicylate of soda, with the aromatic spirits of ammonia, for the relief of the acute congestion of the lungs.

The Minutest Known Organism.—In a lecture recently delivered at Firth College, Sheffield, England, on "The Latest Work Amongst the Least and Lowest Forms of Life," the Reverend Dr. Dallinger, F. R. S., President of the Microscopical Society, described the result of three years close study of the minutest forms of life. Dr. Dallinger stated that he was now possessed of microscopic lenses so constructed as to realize results which, only five years ago, were declared by mathematicians to be impossible of accomplishment. By means of these, he threw upon an illuminated screen various forms of minute life. One of these was a piece of hard chalk, of the size of a pin's head, which contained shells estimated to be equal to four millions in an ounce of chalk. He also showed a drop of water, taken by himself near the reservoir at Preston containing specimens of desmids, which, cubically measured, were only about one-millionth of an inch. Taking a single specimen of living organism from a drop of water, he showed it upon a screen, and said, by the aid of very powerful lenses, which had come into his possession only within the last few months, he had discovered this, which was the minutest organism known. He had measured the flagellum or motor fibre of this organism, and found it to be the two hundred and four millionth seven hundred thousandth of an English inch.

THE INFLUENCE OF WATER ON NUTRITION.—The Paris correspondent to the *British Medical Journal* writes that at a recent meeting of the Societe Medicale des Hospitaux, Mr. Debove stated that so many objections had been raised against the method which he had adopted in making his experiments to ascertain the influence of water on nutrition, that he had subsequently made a fresh series of control experiments. In this series he had selected none but perfectly healthy individuals. These persons were fed on raw meat, new bread and water. Either raw meat or meat boiled to shreds must be given, because both the chemical constitution and nutritive qualities of meat vary according to the way in which it is prepared. The daily bread should always be equally well baked. Mr. Flaming, Mr. Debove's house surgeon, adopted a uniform diet for thirty-eight days. When he reached a weight that remained stationary, the allowance of water was doubled and trebled, but the rations of bread and meat remained the same. During the second part of the experiment, neither the weight nor the excretion of urea increased. Two other persons were submitted to the same treatment. Their weight also remained stationary, as did the quantity of urea excreted. Mr. Debove therefore concluded that the ingestion of more or less large quantities of water did not exert any influence on nutrition, when the quantity reached a certain degree. He admitted, with Dr. Dujardin-Beaumetz, that entire abstinence from water would disturb the digestive faculties. Therefore, persons deprived of water grew thin.

NEW PUBLICATIONS.

HAY FEVER AND ITS SUCCESSFUL TREATMENT BY SUPERFICIAL ORGANIC ALTERATION OF THE NASAL MUCOUS MEMBRANE. An Essay read before the Philadelphia Laryngological Society, April 24, 1885. By Charles E. Sajous, M. D., Instructor of Physiology and Laryngology in the Post Graduate and Spring Course, Jefferson Medical College; President of the Philadelphia Laryngological Society; Fellow of the American Laryngological Association; Corresponding Member of the Royal Society of Belgium and of the Medical Society of Warsaw (Russia), etc. Illustrated with thirteen wood engravings. Royal 12mo: One hundred and three pages. Philadelphia: F. A. Davis, Attorney, Publisher, 1885.

The return of June with its blossoms brings to an unfortunate class, that dreaded semi-annual attack of hay-asthma, and the physician who has such among his patients, will be interested as well as profited by reading this monograph. Dr. Sajous defines hay fever "to be an affection characterized by periodical attacks of acute rhinitis, complicated sometimes with asthma occurring as a result of a special susceptibility on the part of certain individuals to become influenced by certain substances, owing to a deranged state of the nerve-centres. It manifests itself only provided the mucous membrane primarily affected in the course of an attack is in a state of hyperæsthesia, and when the irritating substances are present in the atmosphere." Three factors are thus essential in the production of the disease: An internal irritant—dust, pollen, plant emanations, etc.; a neurotic element—a predisposion of the nervous system to become influenced by the irritant; local disease of the nose-pharynx. Facts are given which are conclusive in demonstrating the presence of these factors.

Probably the best demonstration of the third factor consists in the results obtained with a treatment in which the local condition of the nasal mucous membrane was kept in view; but sensitive spots in the nasal cavities have been indicated. Dr. Mackenzie, of Baltimore, demonstrated such a centre at the posterior end of the turbinated bone and the corresponding portion of the septum. Professor Hack, of Freiburg, Germany, in the same year (1883), demonstrated that various reflex neuroses originate in a deceased condition of the nasal mucous membrane, and locates the area at the anterior extremity of the inferior turbinated bone, and advises the removal of the latter for the cure of hay fever. In addition to these two sensitive areas, Dr. Sajous has, from practical experience in a large number of cases, demonstrated a third area existing "in the anterior portion of the nasal cavity, near the angle forming the anterior boundary of the vestibule, and located upon the nasal wall as well as on the septum."

The greater portion of this little work is devoted to the consideration of treatment which the author summarizes as follows:

(1) That all abnormal conditions of the nasal cavities, such as marked hypertrophies, polypi, exostoses, etc., must be eradicated before instituting the superficial cauterizations.

(2) That the latter are productive of best results when they are commenced six weeks at least before the onset of the paroxysm.

(3) That the treatment can be conducted *during* a paroxysm, the latter being arrested in some and beneficially modified in others.

(4) That the immunity against hay fever depends wholly upon the thoroughness with which the system of treatment is conducted.

PRACTICAL MEDICINE. A System by American Authors. Edited by William Pepper, M. D., LL. D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, Assisted by Louis Starr, M. D., Clinical Professor of Children in the Hospital of the University of Pennsylvania.

Volume III: *Diseases of the Respiratory, Circulatory, and Hæmatopoietic Systems.* Contents:—Laryngoscopy and Rhinoscopy, by Clark Seiler, M. D.; Diseases of the Nasal Passages, by Harrison Allen, M. D.; Neuroses of the Larynx, by Hosmer A. Johnson, M. D., LL. D.; Acute Catarrhal Laryngitis (False or Spasmodic Croup), Pseudo-Membranous Laryngitis, by Abraham Jacobi, M. D.; Diseases of the Larynx, Diseases of the Trachea, by Louis Elsburg, A. M., M. D.; Tracheotomy, by George M. Lefferts, A. M., M. D.; Diseases of the Bronchi, by N. S. Davis, M. D., LL. D.; Bronchial Asthma, Hay Asthma, by W. H. Geddings, M. D.; Dilatation of the Bronchial Tubes—Circumscribed and Diffused, Emphysema, Collapse of the Lungs (Atelectabes), Congestion and Œdema of the Lungs (Hypostatic Pneumonia), by Samuel C. Chew, M. D.; Hæmoptyses, Pulmonary Apoplexy, Abscess of the Lung, Gangrene of the Lung, by William Carson, M. D.; Croupous Pneumonia, by Alfred L. Loomis, M. D., LL. D.; Catarrhal Pneumonia, by William Pepper, M. D., LL. D.; Pulmonary Embolism, by Beverly Robinson, M. D.; Pulmonary Phthisis (Fibroid Phthisis or Chronic Interstitial Pneumonia), by Austin Flint, M. D.; Syphilitic Disease of the Lung, Pneumonokoniosis, Cancer of the Lungs, Pulmonary Hydatids, by Edward T. Bruen, M. D.; Acute Miliary Tuberculosis, by John S. Lynch, M. D., Diseases of the Pleura, by Frank Donaldson, M. D. *Diseases of the Circulatory System:*—Diseases of the Substance of the Heart, by William Osler, M. D.; Endocarditis and Cardiac Valvular Diseases, by Alfred L. Loomis, M. D., LL. D.; Cyanosis and Congenital Anomalies of the Heart and Great Vessels, by Morris Longstreth, M. D.; Cardiac Thrombosis, by Beverly Robinson, M. D.; Neuroses of the Heart, by Austin Flint, M. D.; Diseases of the Pericardium, by J. M. Da Costa, M. D., LL. D.; the Operative Treatment of Pericardial Effusions, by John B. Roberts, A. M., M. D.; Diseases of the Aorta, G. M. Garland, M. D.; Diseases of the Coronary, Pulmonary, Superior Mesenteric, Inferior Mesenteric, and Hepatic Arteries, and of the Cœliac Axis, by Elbridge G. Cutler, M. D.; Diseases of the Veins, the Caisson Disease, by Andrew Hermann Smith, M. D.; Diseases of the Mediastium, by Edward T. Bruen, M. D. *Diseases of the Blood and of the Hæmatopoietic System:*—Diseases of the Blood and Blood Glandular System, by William Osler, M. D.; Diseases of the Spleen, by I. Edmondson Atkinson, M. D.; Diseases of the Thyroid Gland, by D. Hayes Agnew, M. D., LL. D.; Simple Lymphangilis, by Samuel C. Busey, M. D.

We feel that no more extended notice than the printing of the subjects and the contributors, need be made to show the practitioner the value of this volume. Those affections that are most frequent in the northern tier of states, and which are found exceedingly troublesome to treat, the diseases of the upper air-passages, are here considered. Well-known specialists contribute these articles.

The articles by Dr. Jacobi, of New York, on "Acute Catarrhal Laryngitis and Pseudo-Membranous Laryngitis" contain clear and positively declared statements. On the pathology of "Pseudo-Membranous Laryngitis," Dr. Jacobi recognizes but one form. He admits a difference in the degrees of attachment of the membrane, but claims that the difference does not justify a difference of names except for the purpose of clinical discrimination. He, therefore, does not recognize two varieties, the croupous and the diphtheritic, upon the basis that their historical elements are the same, and the difference in their removability is explained by the anatomical conditions of the territory in which they make their appearance. On the treatment the author says: "The most powerful and reliable preventive and solvent thus far, is hydrargyrum. It is true that many voices have been raised against it but from Bard, Bretonneau, and Billard, to Rauchfuss, Charles West, Lynn, Pepper, and others, the remedy has had its admirers."

The paper by Professor N. S. Davis, of Chicago, on "Diseases of the Bronchi," is written in the forcible style which characterize all of Dr. Davis' work. Only the affections due to inflammation of the mucous membrane are considered, which are treated of under the common head of "Bronchitis," under which the following varieties are considered: acute, mechanical, capillary, rheumatic, pseudo-membranous and chronic. The pathology and treatment of these, varieties are considered together. On treatment, after detailing the leading objects to be accomplished, numerous remedies, with various formulæ, are recommended, but without any special argument for their use.

The articles contributed by Dr. Giddings on "Bronhial Asthma" and "Hay Asthma" afford us the first feeling of disappointment; this was particularly experienced upon reading the latter article. We anticipated a full, yet clear, account of conflicting theories; and, of the investigations and conclusions of American physicians with the author's opinion on the same. Since hay asthma has been investigated more by the physicians of the United States than by those of any other country, we expected the investigations and conclusions of Allen, of Philadelphia, Daly, of Pittsburg, Mackenzie, of Baltimore, and others, to receive some notice, and those of Roe, of Rochester, more than a meagre mention. The author's conclusions are drawn from the studies of Blackley, of Manchester, England, and Dr. Marsh, of Paterson, New Jersey, and are contained in the following brief paragraph:

"The experiments of Blackley justify the belief that the cause of the early form of hay fever, which prevails in England, is to be found in the pollen of a number of plants, especially grasses and grains, which bloom in the late spring and early summer, while those of Marsh prove conclusively that the ambrosia artemisiæ folia, or Roman wormwood is certainly one, and probably the chief cause of the American or autumnal variety of the disease."—Page 218.

From this it is evident that the author adheres to the pollen theory. The studies of the American investigators, however, offer almost conclusive proofs that the affection is neurotic due to a local chronic disorder, or to malformation of the nasal structure.

The articles by Dr. Chew, of Washington, and Dr. Carson, of Cincinnati, are practical and valuable contributions to literature of the subjects upon which they treat.

The article on "Croupous Pneumonia," by Dr. Alfred L. Loomis, of New York, is a full and able paper, occupying nearly fifty pages of the work. The pathology of the several stages of the disease is comprehensively considered. On its *ætiology* Dr. Loomis dismisses the matter of a specific cause with the statement that it is as yet undetermined, and the very existence of such a cause is still a matter of conjecture. In that portion of the article appertaining to the treatment Dr. Loomis is clear and explicit, and gives sound principles for the guidance of the practitioner. "If it is remembered," says the author, "in the treatment of pneumonia that the pneumonic lung no more requires treatment than do the intestinal ulcers in typhoid fever, and that we are to be governed by the patient's general condition, and not by the physical changes in the lung as indicated by the physical signs, it is evident that all those measures, which have been employed for the arrest of a local inflammatory process have no place in our therapeutics." Venesection is condemned; it has no influence upon the temperature, and from the study of the pathology of pneumonia, one is not only led to the conviction that venesection must do harm, but it strongly contra-indicates the employment of all those remedial agents which have been used to arrest a simple pulmonary inflammation. The author prefers digitalis to either veratria or aconite. "It not only lowers the temperature but lessens the frequency of the pulse, steadies it, and produces in the majority of cases its well-known tonic action upon the heart." Only a few remedies are recommended, but good wholesome suggestions are made. "It should be remembered that in the treatment of croupous pneumonia we have to do with a self-limited acute febrile disease, which usually runs a cyclical course. Routine treatment is therefore always harmful." "One of the most important things in the successful treatment of pneumonia is a carefully regulated diet." "In all severe types of croupous pneumonia there are two prominent sources of danger: heart-insufficiency and high temperature. There are consequently two prominent indications for treatment, namely, to sustain the heart and reduce the temperature." Such directions must commend themselves more highly to the physician, than the enumeration of a host of remedies or the elaboration of numerous "favorite prescriptions."

Limited space will not admit of a notice of each article, but more than mere mention must be made upon the paper on "Pulmonary Phthisis," by Austin Flint. On the first page of this article the reader is made aware that the author regards pulmonary phthisis as tuberculous, as shown in this paragraph selected from the text under the heading "Synonyms:"

"The name acute pulmonary tuberculosis denotes an affection which may be sharply separated from the chronic forms of pulmonary phthisis. The acute affection is characterized by the presence exclusively or in great abundance of miliary tubercles. It runs a rapid course and the symptoms are those of an acute disease. The name phthisis implies a chronic affection. In a small proportion of the cases of pulmonary phthisis miliary tubercles become developed in great abundance. In these cases acute pulmonary tuberculosis supervenes upon chronic phthisis. These cases, by those who regarded phthisis in its ordinary form as a non-tuberculous affection, were designated cases of tuberculous phthisis. The fact that in cases of phthisis there is a liability to the supervention of miliary tubercles as abundant as in cases of acute tuberculosis, is to be borne in mind, but it does not seem necessary to make a distinct variety of the disease on the basis of this fact. In some cases of pulmonary phthisis the tuberculous product is notably large at the outset, and destructive changes in the lungs go on continuously with unusual rapidity. To those cases the names phthisis florida and galloping consumption have been applied."

Dr. Flint was among the few who were early to believe that specific organisms were the cause of many inflammatory affections, and was among the first of American writers and teachers to support the bacterial theory as the cause of "phthisis." It is upon the conclusion that a particular parasitical organism is the primary and efficient causative agent in the production of phthisis, that this paper is prepared. That he was a great admirer of Koch and a firm believer in his school, is seen in the following statement: "Thus far, the observations of competent medical mycologists are confirmatory of the results of the researches of Koch. It seems to be established that the so-called bacillus tuberculosis is uniformily present in the sputa of phthisical patients, and never present in the sputa of non-phthisical patients; and that tuberculous disease in animals may be produced by inoculation with this organism after cultivation has been sufficiently continued to eliminate all else pertaining to the tuberculous product. On these data are based the conclusions that phthisis is an infectious disease—in other words, that it involves in its causation a specific agent capable of self-multiplication; that it is a communicable disease, and that the agent of the communication is the bacillus tuberculosis—that is, this agent is the contagion."

BOOKS AND PAMPHLETS RECEIVED.

THE DISORDERS OF MENSTRUATION. By John N. Upshur, M. D., Professor of Materia Medica and Therapeutics in the Medical College of Virginia, Richmond, Virginia. 12mo: two hundred pages. Cloth, $1.25. New York and London: G. P. Putnam's Sons.

ESTHETICS OF MEDICINE. The Doctorate Address in the Medical Department of the University of Louisville, 1886. By H. A. Cottell, M. D., Professor of Medical Chemistry and Microscopy in the University. Louisville, Kentucky: Printed by John P. Morton & Company, 1886.

CATARRH OF THE UPPER AIR TRACT, ESPECIALLY ITS EFFECTS ON THE EAR, WITH SUGGESTIONS AS TO TREATMENT, BOTH HYGIENIC AND MEDICAL. By Samuel Sexton, M. D., Aural Surgeon to the New York Eye and Ear Infirmary. Reprinted from the *Medical Record*, January 30, 1886. New York: J. H. Vail & Company, 1886.

GUN-SHOT WOUNDS OF THE SMALL INTESTINES. By Charles T. Parkes, M. D., Professor of Anatomy in Rush Medical College, Chicago, Illinois. Being the address of the Chairman of the "Section on Surgery and Anatomy," read at the meeting of the American Medical Association, held in Washington, District of Columbia, May, 1884. Chicago: Cowdrey, Clark & Company, Printers and Publishers.

SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS. Edited by William Pepper, M. D., L. L. D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. Assisted by Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume IV. Philadelphia: Lee Brothers & Company, 1886.

DISEASES OF THE DIGESTIVE ORGANS IN INFANCY AND CHILDHOOD. With Chapters on the Investigations of Disease, and on the General Management of Children. By Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, Phiadelphia, etc., etc. With colored plate and other illustrations. 8mo: three hundred and eighty-five pages. Cloth. Philadelphia: P. Blakiston, Son & Company, 1886.

CLINICAL LECTURES ON ORTHOPÆDIC SURGERY. Delivered at the Philadelphia Hospital. By A. Sydney Roberts, M. D., Surgeon to the Hospital, and Orthopædic Surgeon to the Out-patient Department of the University Hospital; Instructor in Orthopædic Surgery in the University of Pennsylvania. Numbers I. and II: The Etiology, Morbid Anatomy, Varieties and Treatment of Club-Foot. Reprinted from the *Medical News*, March 13 and 20, 1886. Philadelphia: P. Blakiston, Son & Company, 1886.

of danger:
are conseq
namely, to
Such direct
physician,
elaboration

Limited
more than
"Pulmona
this article
pulmonary
selected fr

"The n
tion which
of pulmon
by the pre
tubercles.
of an acu
affection.
phthisis n
dance. In
upon chro
phthisis in
were desig
in cases of
miliary tul
is to be bor
a distinct v
some cases
notably lar
lungs go o
cases the n
have been a

Dr. Flint
specific orga
tions and w
to support tl
is upon the
the primary
phthisis, that
admirer of K
the following
patent medic
the researcl
so-called

the most important of all, is *rest*. Often it is essential that this should be for a time absolute and complete. From bed to sofa forms, and within certain limits, rightly forms the daily routine of the patient's life. The benefit often obtained when a sufferer, who has been for weeks or months struggling to be up and about, ignorant of the cause which makes all such effort a pain and labor to her, is told to lay up and cease to make the exertions which have produced so much pain, is often so marked that it is not surprising how it should be hailed as a blessed relief. Unhappily, in the course of time it only too often becomes a confirmed habit, broken with the greatest difficulty, which may lead to the shipwreck of the patient's happiness, and of that of all about her, by turning her into a helpless bedridden invalid. Perhaps a result so extreme is rare, yet the experience of every gynæcologist must tell him that it occurs. Under such circumstances the remedy has proved, as remedies unfortunately often do prove, infinitely worse than the disease. The physician who confines his patient to her bed or sofa for an indefinite time in a case likely to be chronic, and who does not strictly limit the amount of rest to be taken and its duration, is beyond doubt an unwise, untrustworthy practitioner. But far short of a result so grevious the rest necessary in the treatment of certain forms of local disease, carries with it many evils, and seriously endangers the patient's general health. Fresh air and exercise, the two great factors of health, she is deprived of; she becomes blanched and weakened, her appetite fails, her natural functions are all thrown out of gear, and, sooner or later, some of the melancholy forms of neurosis, which so unhappily engraft themselves on a woman so debilitated, and flourish on a root thus artificially prepared like some noxious weed, become developed.

How to insure the benefit, then, of the rest which the local disease requires, without subjecting the patient to the risks I have indicated, or, at least, how to minimize them to the utmost, is one of the most important problems with which the gynæcologist has to deal. Unfortunately I fear that specialists in this department have never fairly realized this danger. The entire subject of gynæcology is so comparatively new, that it is not surprising that the attention of its cultivators should have been so much engrossed with the diseases they treat as to have been comparatively unmindful of these secondary, but not less real and important, dangers. Scarcely a day, never a week, passes in which I have not the opportunity of witnessing the truth of these remarks. A woman originally of good constitution presents herself with the history of some local ailment, the reality of which perhaps there is no reason to question. Under the influence of excessive, and too often injudicious, local tr nce healthy woman has become a miserable r k, exhausted, introspective as to her illnesses, and in a state of general prostration, which has become the dominant factor of her condition, and which completely throws into the shade the original local disease which is the cause of all this evil. It may be the case that the general state has been recognized, and futile endeavors made to remedy it by the administration of nerve tonics, iron, phosphorus, and the whole gamut of such drugs as are supposed to remedy these symptoms. Canute was far more likely to have succeeded in his endeavor to stop the tide, than the physician who tries to remedy such a state of things by these means. What I would insist on is not that local ailments in women should be left untreated, nothing is further from my intention, but that every one who does treat them should incessantly bear in mind the highly strung nervous organizations of the class of patients he is is dealing with, and assiduously endeavor to so arrange the topical treatment so as to avoid the risk of producing the still greater evil I have pointed out. European physicians have to thank their American brethren for first showing them how this may effectually be done, and to Drs. Weir Mitchell and Goodell, of Philadelphia, they owe a debt of gratitude for pointing out how, in such cases, rest may be deprived of its main evils. The former eminent physician, in his well-known work on functional nervous diseases, has systematized a method of treatment, individual parts of which had previously been used in a hap-hazard sort of way, which may, without exaggeration, be said to have revolutionized our method of dealing with certain cases, which may not fairly be considered as amongst the most surely curable of ailments, instead of being as they formerly were, the very "opprobium medicinæ." Into that subject, however, it is not the province of these notes to enter. Dr. Goodell, whose line of practice is most strictly gynæcological, was the first to indicate how Dr. Mitchell's method was applicable in certain diseases of women, and I am anxious to point out what excellent assistance may be had in the management of some forms of uterine disease from a partial application of his massage, which forms an integral part of it, as a means of depriving long and enforced rest on her bed or sofa of most of its evils, while its benefits are retained. It is indeed curious how difficult it is to get over old prejudices, in this country at least.

One would suppose that the obvious scientific value of the vicarious exercise thus given to a bed-ridden patient would be readily apparent to all, and yet it is beyond doubt that there is with us, whether such a feeling exists in America or not I cannot say, a feeling that "massage" is a therapeutic agent of doubtful propriety, and hardly one to be ordered by the orthodox physician. It is possible that this may arise partly from the old tradition that the duty of the medical man should be limited to the prescribing of drugs to be swallowed, partly from the fact that there are certain charlatans who use this agent indiscriminately and to the exclusion of other means, in cases to which it is quite unsuited. The former reason it is beneath the intelligence of a modern educated physician to consider; the latter is not of much value, since the abuse of a remedy is no ground for its not being properly used. It is no more reasonable that the quacks should have all the best remedies, than, as Wesley said, the devil should have all the best tunes.

In advocating the use of this remedy in cases in which partial rest is needful, it is well to bear in mind that it must be used in quite a different way, or rather to a much less extent than in the so-called "Dr. Mitchell" treatment of functional nervous disease. In that the patients are absolutely at rest in bed, and they are fed, for a specific purpose, on a high pressure system which is only possible when excessive waste of tissue is produced by prolonged massage extending from two to three hours daily. In the cases I am writing of, however, all that is wanted is so much tissue waste as may represent the ordinary exercise which such a patient would take in health. Half or three-quarters of an hour's vigorous massage daily, in most cases, fairly represents this, and it is sufficient not only to prevent the necessary rest producing the evil consequences I have described, but to keep up the patient's appetite, maintain her strength, and enable her, when her local condition permits, to resume her usual habits of exercise. I have found the greatest benefit from such a plan, and I have far less hesitation now, than formerly, in advising complete rest, knowing that its risks can be thus counteracted. That artificial exercise of this kind is equal to ordinary exercise, such as walking or riding, no one will pretend to say that it forms a fair substitute such as we certainly did not previously possess I consider to be beyond doubt.

If some such plan as this is adopted when prolonged physical rest is required the administration of drugs may be reduced to a minimum. That some of these, such as the preparations of iron, arsenic, and others of the same class may have a certain utility I am prepared to admit: others, much too frequently ordered in a routine fashion for the purpose of soothing the patient, such as bromides, chloral, opiates, and "id genus omne," so far from being useful are often accompanied by results which are simply disastrous, and should be altogether avoided, or, if prescribed at all, it should be for a specific purpose, and under the strictest limitations. The greatest injury which a physician can do a patient with neurotic tendencies is to place in her hands a prescription of the kind I have mentioned, and allow her to drift insensibly into her habit of depending on it for relief. By the vicarious exercise I have advocated the all-important indication of keeping up the nutrition of the patient by suitable food is easily enough secured, for her appetite, necessarily lost when she is confined absolutely to her sofa without air and exercise, is maintained, and it may be truly said that all the benefits of rest are obtained, while its chief evils are avoided.—Dr. Playfair in *Journal of Reconstructives.*

LATERAL CURVATURE OF THE SPINE.

Dr. Smith makes the statement that the majority do not get well without treatment. The general health will improve with the treatment of the spinal trouble, but the spinal trouble will not get well by treatment directed to general health. A few may *grow out* of the curvature but the great majority *grow in.* Weakness acts as a predisposing cause. As a result of pressure on the nerves, on the side of concavity, we have a great variety of pains occurring in the side, down the legs and in the chest. Indigestion a common result. The shape of the chest changing, the space for the lungs and heart is reduced, and the functions of these organs seriously interfered with. Cases occur in which there is no great discomfort experienced, till the deformity is excessive, and the patient well advanced in years, but it does come sooner or later. The early diagnosis and treatment the only safeguard to the patient. The causes may be shortness of one leg, thus acting upon the spine only when standing, smallness of one side of the pelvis, thus acting both when standing and sitting. One side of the body may be smaller than the other. Lameness or anchylosis of hip or knee may have same effect as short leg. The curvature may follow as a result of former thoracic disease as collapse of lung or adherent pleura, partial paralysis of one limb, the absence of an upper extremity necessitating a compensatory curve; secondary, as result of caries of spine in another part, congenital malformation or muscular contraction, following continued use of crutch; paralysis of dorsal muscles of one side. Contraction of scar tissue may be a cause, but the author thinks rarely. Posture due to habit or disease is frequently a factor: this probably is more often the cause. Lack of support for back while sitting, a general cause. Recumbency objected to as interfering too much with healthful and natural play, and after following this treatment for the prescribed time, may sit up for a short time and undo all the good accomplished. The prone position on the prone couch, made after the pattern of Verral, is recommended: the advantages are, the back falls into a natural position, the head is held erect, every movement tends to exercise the dorsal muscles and influence the back for good. The chest is expanded and any difficulty in breathing is rapidly relieved. In very weak persons the head may need support. As a rule does not approve of the band for head rest.

The couch should be used only when the desire for rest comes, and should not be regarded as enforced. The spine being relieved of weight, when the child is at rest, nature has the best chance for restoring the slight curvature. Walking out not recommended for the weak, as it is regarded as monotonous and tiresome, and rest usually improves such cases very rapidly. Exercise very valuable when intelligently employed. All apparatus acting simply as a support and interfering with the development of muscles should be discarded. Appartus should be *very* light and only direct the movements of the body to act remedially. Each case must be treated according to the indications of that case; there cannot be a universal remedy. Extension is mechanically wrong: more can be accomplished by pressure at angle than by any amount of extension that could be borne. Does not consider jackets of plaster, felt or any other material as good as the more careful and scientific method of treatment in the prone position. Treatment is summed up as follows: (1) Freedom of exercise. (2) Avoidance of fatigue. (3) Prone position for rest in a properly constructed chair. (4) Avoidance of heavy jackets and instruments. (5) The correction of the curves by pressure on their apices.—*New York Medical Abstract.*

TWO CASES OF NEPHRITIS VARICELLOSA.

Nephritis is well known as a sequela of scarlatina, and occasionally of measles; but it is only within the last year or two that it has been as observed to follow varicella, and very few cases have been as yet recorded. These two cases were observed at the Children's Hospital, Buda-Pesth, by Dr. Högyes.

Case I.—A boy, two and a half years of age, was admitted to the hospital for eczema of eyelids on the 14th of October, 1884. On the 25th he had a mild attack of varicella, contracted from another child in the hospital. On the 15th of November his face was observed to be puffy, and his urine was found to be scanty, and to contain albumen. He had a very severe attack of nephritis, and died in three days. Postmortem showed parenchymatous nephritis and œdema of lungs.

Case II.—A girl of seven years, came into hospital with varicella on the 28th of October; a moderately severe attack. On the 21st of November she was observed to have face and feet swollen, and the urine was found to contain albumen. She had a short but sharp attack of nephritis, but recovered, and was well by the 12th of December. She had suffered from no other disease, and the nephritis could only be referred to the varicella. The first symptoms of the kidney disorder appeared in each case from the nineteenth to the twenty-first day after the first appearance of the exanthema.

THERAPEUTIC PROGRESS.

Pill for Nervous Vomiting.—Dr. Bartholow directed for nervous vomiting with constipation in a healthy girl, one of the officinal pills of aloes and assafœtid *ter die.*

Chronanthus Verginica.—Dr. Henning has used the fluid extract of this drug for ten years, and claims for it special properties as aperient, cholagogue, diuretic and alterative.

Menthol in Nasal Reflex Neuroses.—Dr. Rosenberg, of Berlin, recommends the application of gelatine bougies containing one-sixth grain of menthol, for the relief of reflex neuroses due to nasal disease.

Silex Nigra (Amentia).—Dr. Paine says the possibilities of this agent are very great, its future exceedingly promising in the treatment of masturbation, excessive venery, spermatorrhoœa and ovarian disease.

Buttermilk in Obstinate Vomiting.—Dr. J. H. Owings has used this article with entire success in as many as fifty cases of troublesome vomiting. It is claimed to be especially valuable in vomiting brought on by debauch.

Artificial Cocaine.—Mr. Merch, of Darmstadt, according to a German journal, has succeeded in manufacturing cocaine from benzoye-ecgonin, a body previously discovered by himself. The artificial substance is found to answer all tests.

Strychnine to Prevent Flooding.—It is claimed that strychnine and iron administered for a month before labor, has exerted a remarkable influence in preventing postpartem hæmorrhage where severe flooding has occurred in previous labors.

Franciscelne.—A new alkaloid has just been extracted from the Brazilian manaca root, for which the name "francisceine" has been suggested. The alkaloid has a very powerful and diuretic action, and is also possessed of diaphoretic and emmenagogue properties.

Arekane.—This substance resembles nicotine, and has been obtained by E. Bombelon from the "betel nut." It is a colorless, volatile, oily alkaloid, smelling like weak meat boullin, and has a strongly alkaline reaction. It increases the secretion of the salivary glands, retards the pulse, and exercises a purgative action.

Calcium Chloride in Enlargements of Lymphatic Glands.—Dr. Davies says that experience has shown him the great value of this agent in removing the enlargement of lymphatic glands, and especially when of a scrofulous nature. He advises it to be given in small doses three times a day, the dose to be gradually increased and continued for long periods.

Iodoform in Diphtheria.—Dr. A. F. Richmond claims that he has cured a very severe case of diphtheria by means of iodoform only. It was applied to the patches on the palate and the fauces (with a camel-hair pencil moistened with mucilage) three times a day. The child also inhaled vapor of iodoform when he suffered from dyspnœa, and was invariably relieved by it.

Lotion for Dandruff.—The following is a good remedy for this troublesome condition of the scalp:

℞.	Tincture capsicum	2 parts.
	Glycerine	8 parts.
	Cologne	2 parts.
	Water	25 parts.

Sig. Apply by means of a sponge every day.

Ointment of Oil of Cade.—Vigier, noting that oil of cade does not combine directly with vaseline so as to form a homogeneous ointment, found that the desired end could be obtained by adding one grain of soap and two grains of water to every thirty grains of pomade. This makes an even homogeneous mass. The same formula may be used with the extract of cade and similar extracts.

Sassafras: Its Toxic Properties.—Dr. Bartlett has published an interesting paper on the toxic properties of sassafras. It appears to have some resemblance to three familiar drugs—opium, strychnine and ergot; for it has a narcotic and sudorific action; a property of inducing tetanic and clonic spasms, followed by paralysis and a probable stimulant effect on the muscle of the uterus.

Cocaine in Ointments and Suppositories.—Cocaine being insoluble in oily and fatty substances, it is advisable in cases where it has to form an ingredient of a pomade or suppository, to first dissolve it in oleic acid, and afterward to add the other substance to it by small quantities at a time. Treated in this manner the cocaine will assimilate itself with the greasy substance, and a homogeneous preparation will be obtained.

Hypnone: Another New Hypnotic.—Dr. Dugardin-Beaumetz recently submitted to the Academie de Medicine, of Paris, the results of a series of observations on aceto-phenone. This compound is prepared by the action of chloride of benzoye on zinc-methyl or by distilling together a mixture of benzoate and acetate of calcium. To produce sleep, it should be given in doses of from two to sixteen minims; and, if administered at bed-time, it uniformly produces a well-marked hypnotic action. It may be diluted with alcohol, ether or glycerine, but the best way is to give it in capsules.

METHYL CHLORIDE SPRAY FOR NEURALGIA.—Dr. Lafonvielle, in his doctoral thesis, reviewed the different methods of treating neuralgia of the trigeminus, and said while the most successful are slow in curing neuralgia, the analgesic action of methyl chloride is instantaneous. According to the author, the experiments of Weller, Schultze, and Rauvier, on the congelation of nerves, prove that no therapeutic agent combats pain in neuralgia of the trigeminal nerves so efficaciously as methyl chloride. The analgesic effects appear to be the result of the congelation of the peripheral expansions of the branches of the nerve.

VIBURNUM PRUNIFOLIUM (BLACK HAW) IN ABORTION AND MISCARRIAGE.—Dr. Wilson, of Liverpool, speaks highly of the good results from the administration of this remedy in women who are predisposed to abortions. Where he has had the opportunity of commencing the viburnum shortly before the anticipated period and continued it at intervals on the first appearance of threatening symptoms, the patients have invariably gone on to the full time, and done well, without being restricted or debarred from active exercise. He recommends it being given in the form of a gelatine-coated pill made of the extract.

FOR RHUS POISONING.—Dr. J. B. Johnson writes that he has never known the following treatment to fail:

℞.	Hyposulphite of soda	℥j.
	Water	℥viij.
	Glycerine	℥ss.
	Carbolic acid	ʒiss.

M. Shake well, and use as a wash three or four times a day or as often as necessary.

With this lotion the following is used internally:

℞.	Iodide of potassium	ʒij.
	Water	℥vij.
	Syrup	℥j.

M. Sig. Dose: a tablespoonful four times a day (after eating and at bedtime).

PAPAIN IN DYSPEPSIA.—Dr. George Herschell finds papain valuable in: (1) *Chronic stomach catarrhs of children* when this state has existed for some time, and the unhealthy mucous which lines the stomach and intestines prevents the absorption of food. He has forced these cases to rapidly improve with the following prescription:

℞.	Papain (Finkler)	gr. ½–gr. j.
	Sugar of milk	gr. j.
	Bicarbonate soda	gr. v.

M. To be taken after each meal.

The papain acts by dissolving the mucus and thus facilitating the absorption of the food. (2) *Acid dyspepsia*, when its antiseptic action checks fermentation and the production of flatulence. (3) *Cases where severe gastric pain*, shortly after eating, is the prominent symptom.

Reviere's Sedative Potion.—Dr. Geneuil suggests the following modification of this well-known and valuable officinal preparation where there is vomiting accompanied and caused by gastric hepatic or enteric pains:

℞.	Hydrochlorate of morphine	gr. j.
	Cherry laural water	ʒijss.
	Sulphuric ether	ʒj.
	Water to make	℥vij.

Mix, dissolve and divide into two equal parts. To the first part add one drachm of bicarbonate of potassium and one ounce of syrup of orange flowers. To the second add one drachm of citric acid and one ounce of aromatic syrup of citric acid (flavored, if desired, with essence of lemon). A tablespoonful of each mixture to be administered (by itself) every five minutes until relief is obtained. The alkaline syrup should be given first. If the pains are not very severe, or the patient be very nervous, the morphine may be replaced by double the indicated quantity (or two grains) of codiene.

SPECIAL NOTICES.

Great Value.—Wm. Hall, M. D., Oginquit, Maine: I have used Kennedy's pinus canadensis. It is of great value.

Drs. Robb and Hall, Woodburn, Kentucky: We find Peacock's bromides to be one of the best remedies we have ever used in nervous headaches and in cases where a nerve sedative is indicated it acts admirably.

Amenorrhœa and Dysmenorrhœa.—T. A. Hull, M. D., of Maple Ridge, Michigan, says: I have used aletris cordial (Rio Chemical Company) in a case of amenorrhœa and dysmenorrhœa, and find it the best remedy I have ever used.

S. H. Frazer, M. D., Saint Louis: I have used with flattering results, Coldren's liquid beef tonic, as a food in a variety of cases—notably in cases of gastric irritability, and such acute inflammatory conditions of the gastric mucous membrane.

Fred. B. Wood, M. D., 456 Broadway, Milwaukee, Wisconsin: I have given Peacock's bromides a *thorough test*, and am pleased to state that after an experience of twenty-five years I have never found any remedy which acts so surely as this preparation does. I am sure that in the near future, especially in the treatment of the brain and nerves, it is destined to take the place of the older preparations to the benefit of both physician and patient.

We regret to announce that owing to a change of time made by the Marquette, Houghton and Ontonagon Railroad, connection is broken at Marquette, and passengers for L'Anse, Baraga, Houghton, Hancock and Calumet arrive at Marquette after the departure of the "Houghton Express" on the latter road, and are thereby compelled to lose one day. The saving in fares and distance by this line as against any other to this region leaves it still the most desirable route, but we desire that passengers destined to the above named points shall be fully advised, in order that no disappointment to them may result. You will be promptly informed when the contemplated change in time card resuming through connections is in effect; meanwhile close connections are still maintained for Negaunee, Ishpeming, Humboldt, Republic, Champion and Michigamme on west bound business, and all east bound passengers may be assured of connections at every point.

H. O. Mackres, M. D., Corry, Pennsylvania, says: I gave celerina to a lady, aged about forty-two years, who had been an invalid for many years, suffering from functional disease of the stomach, heart and head, atonic dyspepsia, vertigo, palpitation of the heart, intercostal neuralgia, hysteria, and in fact nearly all the symptoms arising from cerebro-spinal exhaustion, has been her bane for a long time. From the recommendation of celerina and my knowledge of the properties of the remedies of which it is said to be compounded, I thought this would be a proper case to test its virtues. I accordingly prescribed it in teaspoonful doses four times a day and a mild laxative pill at night when necessary to keep the bowels soluble, and was happy to hear her say, before the bottle was all used, that she believed I had found the antidote for her ills. Another lady of about middle age suffered from atonic dyspepsia and insomnia. I prescribed a proper diet and nearly all the hypnotics I could think of, but nothing except preparations containing chloral and bromides seemed to procure sleep, I gave her celerina, and since she has been taking the second bottle I have heard of no complaint for want of sleep.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. JULY, 1886. NUMBER VII.

ORIGINAL ARTICLES.

A PAPER ON SEPARATION OF THE SYMPHYSIS PUBIS DURING PARTURITION.*

BY M. E. PAGLESEN, M. D., BOSTON, MASSACHUSETTS.
Senior Physician in the New England Hospital.

This subject was not chosen with the hope of presenting anything original, but it had become one of interest to your reader on account of a case treated at the hospital early in the winter, and it was hoped, would be of interest to the society.

The text-books on obstetrics have very little to say about it, and in reports of cases and dissertations on the subject also, as found in the accessible medical journals, the literature is not full. Most of the facts in this paper have been obtained from a treatise by Dr. Fr. Aklfeldt, Leipzig, as found in *Schmid's Jahrbucher* for 1876. Until 1868 he had been able to find but twenty cases recorded, but at the date of his paper had collected upwards of one hundred cases, and thought they would be found much more common than usually supposed if the slighter forms did not so often pass unnoticed, and physicians were not ashamed to publish the cases occurring in their practice.

The extent of separation which can take place between the two pubic bones is a subject which has given rise to considerable discussion among obstetricians. Some writers have gone so far as to maintain that a limited amount of separation takes place in all cases of labor, while others have as positively asserted that no such separation is possible without giving rise to serious results to the mother; and some have advised and practiced an operation for division of the symphysis pubis in cases of contracted pelves, with the hope of increasing the diameters, an idea which is very recently being revived in Germany.

---

*Read before the New England Hospital Medical Society May 20.

Relaxation and separation of the pelvic symphyses, as evidenced by reported cases, may occur during pregnancy, during parturition, and even in the puerperal state, here starting from septic infection. Outside of these there are a few cases caused by muscular action, as in riding, the rider being suddenly thrown up in the air and as suddenly falling back on the saddle.

During pregnancy there may be relaxation of all the symphyses of the pelvis, sometimes due to traumatism, more often without any apparent cause. It is accompanied, usually, with pain in the region of the hips, and this may go on until the patient cannot stand or walk and has to take to her bed. The symphyses often are plainly movable. Inflammation and pus formation may take place. This condition does not have a favorable influence on the course of the confinement, as might be thought. Labor is rather slowed because of and by the pains caused by the relaxation.

In a case reported in the *Chicago Medical Journal and Examiner*, the patient, pregnant at nearly full term when a physician was call in, walked with the aid of two canes. The abdomen was much distended, walls of vagina relaxed and partially prolapsed, rectum prolapsed, symphysis pubis separated three-fourths of an inch, the bones at the sacro-iliac synchondroses quite movable. The inability to walk had come on gradually. She could feel the hips move up and down when she stepped and felt as if pried apart. Confinement took place a week later. Presentation first vertex. Pains strong and regular but progress slow. Labor lasted seven hours. During the passage of the head the pubic bones separated one and one-fourth inches, so two fingers could be placed between. The child was large, with a very firmly ossified head, and looked as if a month old. The patient had had the same trouble in a previous confinement, but not to such a degree as in this one. She made a perfect recovery.

The notes of a case as written by the sufferer herself, a very intelligent lady, may be of interest. They are, briefly, as follows.* During her first pregnancy she was so ill with various other troubles that she was obliged to keep her bed after the first month and so did not know whether she had separation that time. During three succeeding pregnancies she was unable to lift her feet from the floor after the end of two months, but managed to shuffle around by bracing her knees together and pushing a low chair before her. Soon she began to have what she thought were rheumatic pains in the pelvis, and after the seventh month severe neuralgic pains in the uterus and lower limbs, and could not turn or be turned in bed without screaming. She could lie only on her back, and had the sensation as if "the pelvis were parted." In the first of these three pregnancies the diagnosis of separation of the symphysis was made at the beginning of the ninth month by Dr. Charles Meigs. When he turned the patient on her side the "bones moved upon each other with a report like a pistol, which was heard in the next room." She was not "conscious of any trouble during labor, other than some soreness in the pelvic bones." The suffering during labor was very moderate, but that may partly have been owing to the fact that her children were very small, averaging only a little over three pounds in weight. Twice afterwards she became pregnant, but each time miscarried at three months. Even now, thirty-six years after the first pregnancy, if she walks too far, or overdoes in any way, the pelvis aches.

---

*Obtained through the kindness of Dr. Mary F. Hobart, Boston.

One case more, caused by traumatism. A primipara, aged twenty-five years, about the middle of pregnancy received a severe blow on the symphysis pubis. She had some slight febrile movement and suffered some pain, which soon grew less and disappeared, but with it the ability to walk was lost. She was delivered, six weeks too soon, of a small, feeble child. Puerperal fever and death followed. At the autopsy the symphysis pubis was found separated, the ends of the bones completely destroyed and bathed in pus.

To come now to separation during labor. We are taught that it may take place spontaneously when inflammation or excessive relaxation of the joints exists at the time of labor, but more commonly is the result of difficult forceps operations in cases of contracted pelves; that the risk of this is great when forceps are applied at the brim and traction is made in a direction anterior to the pelvic axis.

The brim or inlet of the pelvis is to all intents and purposes a solid ring of bone whose form cannot be changed. If there is force enough to overcome the resistance, separation must occur in two places. It is evident that a break cannot occur in a perfectly solid ring in one place only. Separation will occur either in the symphysis pubis and one of the sacro-iliac joints, in both of the synchondroses and not the symphysis pubis, or in all three of them. Cases are recorded showing the three forms. The separation of the pubes is the primary and the other the secondary. That of the pubes is the most easily explained, and this, with separation of the right iliac joint, is most common.

The degree of separation is very variable. Frequently the symphysis pubis is entirely separated and the iliac symphysis only partly, on the anterior surface. It depends upon the structure of the pubis, quantity of synovial fluid, strength of ligaments, whether separation takes place in the middle of the cartilage, or whether the cartilage is separated from the bone at one side. More force is needed for the latter, there is more apt to be a sound at the time of separation, and crepitation can be felt and heard afterward. A slight degree of separation may occur without much injury to the capsule of the joint. Severe cases may be complicated by injury to the bladder, urethra, vagina and cellular tissue between.

It would quite naturally be thought that such extensive injury to the pelvis can occur only through great force. The literature shows that forcible extraction of a large head was the cause in a large number of cases. But the number is not small where separation was found though force was not used, sometimes even in normal labor, where the pains were not excessive. From this it would seem that some pelves, or their articulations, are predisposed to rupture. This is most easily explained when an inflammation of the joints, an accumulation of pus in them was present before parturition, as in the case due to traumatism, cited above. But the quantity of fluid is not necessarily due to traumatic causes. It is found to vary in different persons and may be a fault of development, as is ectopia vesicæ. Then if there is any want of proportion between the head and the pelvis, there will be separation. If there is inflammation of the joints, a very slight force may cause separation. If these conditions are absent, the form of the pelvis may predispose.

The most numerous cases recorded are those in the uniformly contracted pelves. In these, and in the pelves deformed by osteo-malacia, there is narrowing of the transverse diameter at the brim, constituting the most important cause. The head is pressed down into the narrowed space and naturally must separate the symphysis pubis if it is to pass through the pelvis, and secondarily the sacro-iliac synchondroses, one or both, if room is not given by change of form as might happen with the soft osteo-malacic bones. In the rachitic pelvis the separating force works in the direction of the straight diameter, which is not favorable to separation. Besides, in the rachitic pelvis the symphyses are often unusually hard and so present greater opposition. On the other hand, as will be seen later, the great obliquity of rachitic pelves is favorable to separation. If the rachitic pelvis is at the same time uniformly contracted, the danger to it of separation may be classed with that of the uniformly contracted pelvis.

Theoretically, the funnel-shaped pelves should be classed after the uniformly contracted and osteo-malacic, but they are not common, and cases reported as occurring in them are extremely rare.

The head is usually the part of the child which acts as a wedge, but there are examples on record where this was not the cause, or at least not the sole cause. In one case separation was supposed to be due to an excessively large and hardened placenta in an osteo-malacic pelvis. In another the fœtus was born with the membranes intact, labor was very easy and rapid, still there was separation.

In many cases the cause was the too great force which came into play in extracting or in forcing out the fœtus. Usually it was a difficult forceps extraction. Some are reported after manual extraction of the after-coming head, and one case was due to the use of the vectis. The position of the head and mode of extraction are of importance. Very often the head was in a transverse or an occiput posterior position when the delivery was completed. When the head is pulled through the pelvis, especially through the outlet, in these positions, if the force of the pull is directed too much against the arch of the pubis, if the forceps are too soon or too forcibly elevated, the head acts as a wedge and drives the symphysis apart. This wrong direction of the extracting force, combined with the exertion of too much force on the part of the accoucheur, is the most fruitful cause of this accident.

In one case, forceps delivery in knee-elbow position seems to have favored separation, for it is to be presumed that the head was pressed sooner than was best into the arch of the pubis. In the rachitic pelvis there is greater obliquity, hence more direction of the force into the pubic arch. One case happened in spontaneous delivery in a kneeling, groveling position, but here there may have been some predisposing cause in the joint.

Some room is always given to the head by the separation. Sometimes it is sufficient to allow of its easy passage through the canal. Sometimes there is not enough; then, notwithstanding the separation, the head remains in, or above, the pelvis. Experiments on the recent subject showed the increase in the conjugate diameter at the brim, after separation, to average less than one centimeter. If after this separation downward pressure was made on the anterior walls of the pelvis, the iliac bones turned on their axes at the sacro-iliac joints, giving greater obliquity, and then in one case the increase in the length of the conjugate was two and five-tenths centimeters, of the transverse one and six-tenths, the right oblique three and nine-tenths, left oblique four and two-tenths centimeters, but the sacro-iliac joints were destroyed.

At the time of the occurrence of separation, the patient may experience a sensation of tearing. Sometimes a distinct noise is heard. The physician should think of this accident if there is a sudden descent of the head, accompanied by a noise and this sensation of tearing, with pain in the joint. In slight cases these signs and symptoms are completely wanting, but immediately after the patients usually complain of complete inability to move, or severe pain when they try to move. As these complaints are sometimes made after severe instrumental deliveries, a large number of cases has probably passed unnoticed, and others, perhaps, when because of anæsthesia the patient could make no statements.

Characteristic of complete separation is outward rotation of the thighs. Separation may be felt through the skin, as much as several fingers' width. Alternate pressure upon the ends of the bones at the articulation and combined external and internal examination will cause movement and crepitation, occasionally a perceptible sound, and pain which is relieved by fixation of the pelvis.

Rupture of the bladder has been coincident. If the vagina is lacerated, the finger may pass up and even enter the capsule of the joint between the separated surface. Incontinence of urine will be the more noticeable as retention is the rule. In a case reported in the *Boston Medical and Surgical Journal* as late as four weeks after the accident, there was a separation of two inches between the ragged edge of bone on the right and the torn ligament and fibro-cartilage on the left, laceration of the anterior wall of the bladder and a rent into the vestibule. It is not reported whether the bladder was sewed up, but merely that the woman was alive four months afterwards. Forceps had been applied at the brim, and were closely clasped by the cervix during each pain. The liquor amnii had escaped twenty-four hours before the pains began. The head had remained fixed at the brim, with a rigid undilated os, for eight hours. The forceps remained in position two hours, and when traction was made the symphysis pubis gave way with a loud snap.

In the majority of cases the diagnosis seems not to have been made until one or more days after the accident.

The prognosis, as a rule, is good. When a tight bandage was put on the first day after confinement, the patients could often get up within two weeks. But there may be movement which it may take months and even years to cure.

A tight bandage around the pelvis, to hold the torn surfaces closely in apposition, is the only treatment which seems to be necessary. A simple towel, folded and tightly pinned around, would seem to be sufficient, and as it can be easily renewed, has the advantage of cleanliness. An adhesive plaster bandage will give a comfortable support and feeling of security.

In some instances, patients who had suffered from separation of the symphysis pubis during a confinement, became pregnant again, and then had very easy labors, as if there had been a permanent increase in the diameters of the pelvis. But in one case a callous tumor was formed at the symphysis and interfered with delivery.

Mrs. E. B., primipara, aged twenty-nine years, confined three weeks before, came to the hospital October 21, 1885, bringing the following letter from her physician:

"She had a long and tedious labor, which was terminated by the use of forceps. The instrument was applied at the brim, version being prevented by the existence of an hour-glass contraction. The pelvis being uniformly contracted to a moderate degree, the extraction was difficult, but was attended by no unusual expenditure of force and without the aid of leverage movements. The separation took place during the passage of the head through the brim. As the head came under the arch, the perineum was freely incised on each side, the incisions being subsequently united by sutures. No laceration of the perineum occurred, but an extensive tear in the region of the vestibule was discovered, involving the lower portion of the urethra and permitting the passage of the finger between the separated surfaces of the symphysis pubis. The child had a firmly ossified head, cried as soon as delivered, and with the exception of a transient facial paralysis, was all right.

"The treatment thus far has consisted in keeping the bones approximated by a pelvic bandage, irrigating the parts with a sublimate solution, dusting with iodoform, and attending to the bladder. Owing to incontinence of urine, a catheter has been retained most of the time, but now seems unnecessary. Paralysis of patient's left leg was marked at first, but is now rapidly disappearing."

The patient's condition when admitted to the hospital was as follows: A very aæmic looking, slender brunette, rather under medium size. Examination of thoracic and abdominal organs negative. Between the two pubic bones a depression, easily admitting the tip of the index finger. Introitus vaginæ large, open. On each side of the perineum a deep cicatrix. A large cicatrix on the anterior wall of the vagina, and the lower wall of the urethra divided almost to the neck of the bladder. The upper part of the vagina filled with cicatricial bands, cervix almost obliterated, uterus small, anteverted. Patient complains of poor appetite, constipation, and incontinence of urine, pain in left hip and knee when that leg is moved. Just below the knee, on the outside of the leg, a small spot which is painful to the touch, but no visible lesion. Sometimes a burning sensation in the left foot. Some pain in the symphysis pubis when pressure is made on one side of the pelvis.

A firm bandage was applied from the crests of the ilii down to the great trochanters. Internally she was given tincture ferri chloride and a laxative. On the 28th of October she was allowed to sit up in bed with a bed rest, and continued this until November 5, when she sat up in a chair for the first time.

On November 13 she was etherized and an operation for restoration of the urethra done. The torn edges of the urethra and a narrow strip of adjacent vaginal tissue were denuded, united on the urethral surface by catgut and on the vaginal surface by silk and catgut sutures. A soft rubber catheter was left in the urethra. The knees were tied together, and a wide bandage, reaching nearly to the knees, put around the pelvis and hips.

The catheter and sutures were removed on the 20th. There was good union, and the patient had no incontinence of urine. She still continued to have occasional pains in the left leg, which suggested that the left sacro-iliac joint was the one injured, and that in some way, perhaps by the formation of a callus, pressure was made on the great sciatic nerve. On the 27th of November she stood on her feet for the first time since her confinement, and began to walk December 4 with the aid of crutches. She continued to improve, and was discharged from the hospital December 30. There was good union at the symphysis, she had almost complete control of the bladder, and could walk about quite easily without aid.

Dr. Norton very kindly saw her for me last week, and obtained the measurements of the pelvis. Extreme conjugate, seventeen centimeters; distance between crista ilii, twenty-five; between anterio-superior spines of ilii, twenty-one; between great trochanters, thirty; and between tuberosities of ischii, nine centimeters. She was feeling very well, could attend to all her household duties, and even carried her child up and down three flights of stairs. The symphysis is firmly united, and she has no pain there, but occasionally has a slight pain in the left thigh, which extends down the leg, and is most severe in the foot.

CLINICAL LECTURES.

EPILEPSY: HÆMORRHAGE OF THE SPINAL CORD.

BY WALTER HAY, M. D., LL. D., CHICAGO, ILLINOIS,
Professor of Nervous and Mental Diseases, and of Medical Jurisprudence, in Chicago Medical College.

REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY SPECIAL CORRESPONDENT.

GENTLEMEN: There is one point in connection with this case to which I desire to call your attention, and that is the recurrence of the attacks. The woman has evidently a very violent temper; in fact, she admits it. The recurrences of the epileptic paroxysms seem to coincide with the outbursts of rage. The point to be observed is the sequence of the attack, which depends upon an increase in blood pressure within the brain. Of course, any emotional disturbance or fit of anger will increase the amount of blood in the brain, and increase the irritability, and that irritability is sometimes sufficient to develop an epileptic explosion, so to speak. It is not at all improbable that these outbursts of rage have been a very important factor in developing the epileptic condition. As a matter of course, a chronic epileptic has less voluntary control over the emotions than a person in a healthy condition, so that some portion of her emotional stability and instability must be attributed to the epileptic condition. The rupture of vessels is not an infrequent occurrence as the result of a violent fit of anger, and more especially where the coats of the arteries have been weakened by the disease, congenital or acquired, constituting an anatomical basis for attacks of hæmorrhage of the brain. My attention was particularly directed to the pustular eruption about her face, which is simply a result of continued use of the bromides; we find it frequently resulting from that. It is one of the disadvantages occasioned by their use, but one we have to put up with in controlling the paroxysms.

The second case is a child fourteen years old, who complains of pain in the head, recurring every evening; pain in the lower part of the back. She is anæmic; pupils dilated. The probabilities are, she is just on the eve of the establishment of menstruation. The pain in her head is not the result of congestion of the brain; it is a condition which is made a sort of scapegoat, and to answer for three out of every four cases of pain in the head, when it really is responsible for about one case in a hundred. That pain is due to reflex spasm of the temporal and occipito-frontalis muscles; it is the result of increased reflex irritability in the spinal cord, which of itself is the result of increased physiological irritability in the uterus. I prescribe for her the ergot, not with any intention or expectation of increasing the menstrual flow, but to diminish the reflex irritability in the spinal cord. When I tell you that ergot will diminish the reflex irritability in the spinal cord, I tell you what I have demonstrated more than a thousand times, and am just as certain of it as that water will put out fire. The probabilities are, that the diminution in the reflex irritability of the spinal cord will, at the same time, diminish vaso-motor irritability and promote dilatation in the vascular channels of the uterus, and, perhaps, indirectly promote the evolution of menstruation, and in that way indirectly relieve her headache. I think we will be able to accomplish it in the way I have indicated, but it is a roundabout and indirect way. It is through the influence of the drug upon the nervous apparatus primarily. As I said before, the girl is anæmic; she needs nutrition; her tongue is pale, moist, and covered with white, dead epithelium. Her pulse is not strong, but rather feeble. The diminution in the irritability of the cord will undoubtedly have a similar effect upon the stomach that it has upon the uterus; it will diminish vaso-motor irritability there. The ergot will increase the secretory action of the kidneys, as well as the afflux of blood to the glands and secretory apparatus generally, and there is no reason why it should not increase the effusion of blood from the uterine mucous membrane in a similar manner. With regard to the action of ergot upon the spinal cord in diminishing increased irritability, I speak from positive experience. I have demonstrated it, and am therefore able to speak within bounds.

We prescribe for her the following:

℞. Ten cubic centimetres fluid extract of ergot.
Thirty water.
Sig. One teaspoonful every evening.

As we are discussing the subject of the spinal cord, I will consume the balance of the time at my disposal by calling your attention to hæmorrhage of the cord. You will find in text-books that hæmorrhage of the cord is dealt with as the result of a great many causes: increased functional action of the cord; fatigue; excessive exercise, and so on. I think, gentlemen, when you have practiced medicine thirty years or more, and look back over all the cases of hæmorrhage of the cord you have ever met with, you will recall the fact that nearly all of them have resulted from violence. I have seen not a great many cases of hæmorrhage of the cord, because it is not a common disease, but all the cases I have seen reported authentically have resulted from violence, either from blows upon the cord, falls, or the falling of heavy bodies upon the body—being thrown from a railroad train, for example, especially of falling in such a position that the spinal column will be suddenly flexed, voluntarily, in such a way as to mechanically lacerate vessels. All of the cases I have seen have resulted in that way. One case I recall at present was a man who fell through a hatchway in such a way that the back of his head struck the ground first, and the weight of his legs and body fell over in such a manner as to flex the spinal column. Another case was a man who fell through an iron stairway, falling flat upon his back; but in either case the symptoms of the disease were manifested suddenly. In most all of these cases paralysis is more or less complete below a certain level; and also anæsthesia, commencing at first as a dysæsthesia or paræsthesia—that is to say, there is a dangling in the lower extremities below the seat of injury, with paralysis generally, not at first total, but more or less complete; and the anæsthesia will mark the site of the hæmorrhage. Another indication of hæmorrhage is intense pain; and although the pain is peculiar in its character, yet it is not a sharp, lancinating pain. It is localized distinctly at that portion of the cord where the hæmorrhage exists. If you will consider the anatomical conditions you will comprehend *why* such symptoms are manifested; sudden rupture of blood-vessels, extravasation of blood into the spinal canal, compressing the cord. Examination of the cord postmortem, and, unfortunately, our examinations of these cases are almost always postmortem, because those that most frequently die will reveal hæmorrhage either above the dura mater, between the dura mater and the spinal canal, or the arachnoid. Hæmorrhage within the arachnoid is not common. Occasionally, we have it beneath the arachnoid and pia mater, but it is rare. We find it almost always occurs either between the dura mater or the bony structure, or between the dura mater and the arachnoid.

The vast majority of these cases are fatal; but little can be done in the way of treatment: keep your patient at rest, and if possible to do so, in a prone position; keep him over upon his face and breast so as to retard as much as possible by gravitation a continuation of the hæmorrhage. You may administer at first such remedies as will diminish the afflux of blood to the spinal cord. Ergot is perhaps one of the best agents that can be used, and the constant galvanic current better than any. Apply cold applications to the cord, especially pounded ice in rubber bags or packs, if possible, in order to avoid the wetting of clothing. If you can relieve pain by opiates, extreme care must be taken in watching the condition of the bladder, using the catheter two or three times a day to prevent an overflow, and carefully use bed-pan to receive the discharges from the bowels. With regard to curing cases, there is but little to be done; you are to depend almost entirely upon the continuation or cessation of the hæmorrhage, which may possibly yield to remedies such as have been referred to. If, however, it is sufficient to occasion much compression, you will almost surely have disorganization of the cord as a result from pressure. Postmortem examination will show not only the clot more or less disorganized, but will show that the spinal cord itself is in a state of softening, and sometimes almost reduced to a condition of pultaceous consistence.

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY L. F. HATCH, ANN ARBOR, MICHIGAN.

THE INFLUENCE OF FLUIDS ON NUTRITION AND IN THE TREATMENT OF OBESITY.

BY PROFESSOR ALBERT ROBIN.

There are two views held: the one, that liquids are inactive; the other, that they are of real influence. Of these views Professor Robin accepts Genth's position—that water introduced into the stomach in large quantity augments the proportion of urea and salts in urine. But the further question is, Is this due to a more thorough washing of the urea already formed, or to an augmentation of disintegration? He thinks it is partly due to the former; and that the tissues being more thoroughly freed from the products of their disintegration, oxidation processes will be favored. Forster found not only increase of urea, but also of sulphur compounds, which were doubtless due to the breaking up of albuminoids. The next point to settle is whether the augmentation of the urea depends on increase in organic disintegation or on an exaggeration of combustion. From Genth's experiments and his own Professor Robin concludes that the ingestion of a large quantity of water augments combustion—that is, oxidation without augmentating equally organic disintegration. Obesity has two causes: in the one, assimilation is augmented; in the second, destruction is diminished. In the first class water to be strictly curtailed or interdicted; in the second, the ingestion of a considerable quantity of water will entail a marked loss of fat. But the question has to be answered, how can we distinguish these two classes? This is accomplished by finding whether the quantity of urea is increased, diminished or stationary. An increased excretion of urea shows that there is an increased assimilation, while on the contrary a diminuation of urea indicates very clearly a diminished oxidation. An individual makes little urea, either because he eats little or because oxidation is affected. In the first case, he eliminates as much nitrogen and carbon as he injests, and he does not, therefore, become fat; in the second, the balance is in favor of ingestion and he fattens. But the more numerous cases are those in which the urea is normal. In these cases, instead of estimating the urea, it is necessary to estimate the co-efficient of oxidation; this is raised when obesity is from excess of assimilation, lowered when from *disassimilation.* It therefore follows that fluids ought to be freely administered in obesity when there is a small excretion of urea, or when the co-efficient of combustion is diminished; but fluids are to be abstained from in those who secrete much urea, or in whom there is an increase in co-efficient of combustion.

TREATMENT OF ACCIDENTS OF THE MENOPAUSE.

BY DR. J. CHERON.

The period which is spoken of as the menopause rarely comes about suddenly, but more frequently announces itself by a gradual diminution of the quantity of blood lost each month. Certain troubles occur at the time of menstruation: all of these are doubled, lasting about fifteen days, constituting at times true metorrhagia; by and by, on the contrary, there is suppression for many months, with diminution of the flow. The troubles of innervation and of the circulation, which are usually confounded, are characterized by nervous excitations, which are manifested by a kind of plethora, with frequent attacks of fever and pains about the face and head. Vertigo, headache, suffocation, and palpitation appear consecutively. The patients are unable to rest in a room whose temperature exceeds 10° to 12° centigrade. Some are unable to remain in company without experiencing a feeling of oppression which may even result in fainting. It is followed by supplemental hæmorrhage, hæmorrhoids, and vesical congestions of every character.

At the same time the disposition is altered, the nervous impressibility is exalted, and various eruptions manifest themselves: acne, pimples, itching. It is followed by abdominal flatulence, and often, at this stage, even when none of these manifestations have been noticed previous to this time, hysteria is developed, with a series of nervous symptoms.

The two principal methods to oppose each one of these morbid phenomena—means simple and easily borne by all patients—are represented by bromide of potassium, on the one hand, and purgatives, on the other. In short, two indications here present themselves: (1) To alleviate the vasculo-nervous troubles of the face and brain by the aid of a vascular remedy. (2) To promote elimination from distant organs, the intestines, for example. The best method of employing bromide of potassium is, in our opinion, with bitter orange peel as a menstruum.

As to purgatives, we give our preference to podophyllin, and resin of scammony, given in pill form. Some hæmorrhoidal patients, very sensitive to the action of podophyllin, stand better the action of saline purgatives.

Dry frictions every morning over the entire body, medicated baths, moderate muscular exercise daily, regular mode of living, exemption from fatigue and anxiety as much as possible; in short, a diet not stimulating and very moderate will be the best adjuvants, which must not be neglected.

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

REPORTED BY T. J. SULLIVAN, M. D., ANN ARBOR, MICHIGAN.

MALIGNANT TUMOR OF THE THIGH.

A. D., aged thirty-three; American; farmer. Entered the hospital October 30, 1885.

History.—Four months ago an enlargement about the size of a marble made its appearance on the inner part of his thigh, a little below the groin. At first he paid no attention to it, supposing it to be merely a "kernel" due to a cold. Soon, however, it grew larger, and he sought medical aid. The growth was then about the size of a hen's egg, and well defined. It was painted with iodine, and afterwards he applied a flax-seed poultice for two months, but neither of these remedies had any effect. At Benton Harbor he exhibited it to the Berrien County Medical Society. The physicians present at the meeting concluded that it was an abscess, but upon lancing it blood spurted freely,—no pus. The hæmorrhage soon ceased spontaneously.

Present Condition.—The growth now is ill-defined and hard, extending from near Poupart's ligament down almost to the lower third of the thigh. There is much pain in the knee-joint and a little in the hip-joint. His general health is poorer than before the appearance of the tumor, and the whole limb is useless. There is no pulsation felt in the tumor, but the femoral artery can be felt entering the upper part of it.

November 2: Before clinic. Not an aneurism—no pulsation, and no bruit on auscultation. Not an abscess—no fluctuation. No history of injury, no chill, no fever. Not bony in character—growth too rapid. Doubtless a malignant growth, and if so, the only remedy is amputation at the hip-joint with all its attending dangers, and even then there is no assurance that the disease will not return. Patient to remain in hospital for a few days for more extended observation.

November 5: *Exploratory Operation.*—The patient was anæsthetized, and an exploratory incision three inches in length made at the lowest part of the growth, on the outer aspect of the thigh. There was quite free hæmorrhage, which was controlled by pressure. A large amount of blood and a jelly-like material was pressed out, still leaving, however, a hard lump in the region of the groin. The wound was closed by four sutures, and the whole limb bandaged from the foot.

Diagnosis.—A malignant tumor, cephalomatous in character. Microscopical examination proved the growth to be a soft hæmatic sarcoma.

Prognosis.—The only remedy which offers any chance for life is amputation at the hip-joint. This is not advised, for it is doubtful if it would prevent the recurrence of the disease.

November 7: Discharged.

December 30: Death at home.

CYST OF TONGUE.

David S., aged twenty-eight. Entered hospital March 15, 1886.

History.—Three months ago, with no known cause, a cyst appeared under his tongue, which Dr. M. tapped in two weeks after its appearance, but it soon filled up again and he tapped it twice afterward, the last time, six weeks ago, when he injected it with iodine. It filled up more slowly after this treatment. Now it fills up under the tongue and has pushed down underneath the ramus of the jaw on the right side of his neck, just in front of the sterno-cleido mastoid. Pressing the external cyst, it disappears and the cyst under the tongue increases.

Clinic.—"A somewhat exaggerated and obstinate case of what is known as ranula. Since it has resisted the former treatment, it will be best to open it externally." This was done by an oblique incision an inch in length, and quite an amount of fluid—about four ounces—evacuated. It was thick, tenacious and mucous in character. There was quite free venous and some arterial hæmorrhage, which, however, soon stopped without ligation. The wound was kept open with a tent, and the advisability of injecting some stimulating fluid will be considered.

March 16, P. M.: Much discharge when the wound was dressed, of the thick mucous material.

March 17: Secondary hæmorrhage came on at the evening dressing, but ceased before the bleeding point could be found and ligatured; compress applied.

March 18: Another hæmorrhage in the morning, ceasing spontaneously as before. After this Professor Maclean made an opening inside the mouth, and evacuated a quantity of pus. There is much inflammation, promising to effectually close the sac.

April 1: Continuous and rapid improvement since the evacuation of the sublingual sac. Discharged cured.

March 16, P. M.: Temperature 103°; quinine ten grains.
March 19, A. M.: Temperature 102.2°; quinine ten grains.

GENERAL CORRESPONDENCE.

SANITARY CONVENTION AT KALAMAZOO, MICHIGAN.

The Kalamazoo Sanitary Convention, under the auspices of the Michigan State Board of Health, held its sessions June 1 and 2, 1886. The State Board of Health was represented by Professor Victor C. Vaughan, of Ann Arbor; Dr. John H. Kellogg, of Battle Creek, and Dr. Henry B. Baker, of Lansing.

After the address of welcome by the mayor of the city, Honorable Peyton Ranney, and the address by the president of the convention, Honorable H. F. Severens, Dr. H. H. Schaberg, health officer of Kalamazoo township, read a paper on "Diseases of Poverty." The diseases incident to poverty include among their causes malnutrition, insufficient or improper clothing, and the bad hygiene of poorly built, unhealthy dwellings. The terrible results of deficient or improper nutrition are found in the infants of the poor. It virtually kills the child in many cases. How can an infant's weak organs assimilate the improper food thrust on it? The mother, weakened and harassed by lack of food, and prematurely broken down by overwork, is unable to give a child a good constitution. And when the natural food of the infant is supplemented by unfit food from other sources, its life is stopped by terrible suffering. Indigestible food causes many untimely deaths, killing more human beings than all other causes. Insufficient or improper clothing is also a great evil, too warm in summer, too cool in winter, causing the child to become stunted or dwarfed. Ignorance kills rich and poor. Poverty often debases by stunting the sensibilities, destroying the sense of cleanliness by close quarters and lack of means for cleanliness. Despair, discouragement, and surrender to these circumstances follow. Filth does not start a contagion, but it causes it to become more virulent and prolific. The physician in such cases has to battle against ignorance, obstinacy and resentment, where the case needs the most favoring circumstances. It has to be treated and checked where the family live, in one or two rooms, with no ventilation, over a poisoned cellar or soil that is a death-trap. The doctor cited a case in his practice, of obstinate disease that was finally overcome by simply moving the patient to wholesome air. He noted particularly one local cause of ill-health, in the practice of girls working in the celery gardens in the late fall, doing themselves great mischief by keeping their hands in the cold water washing celery for market, sowing the seeds for much future evil.

"Sanitary Regulations of the Hebrews," was the subject of a paper by Rabbi Ignatz Mueller, of Kalamazoo. He showed the growth of interest in sanitary regulations to the present day, and emphasized the misery produced by ignorance. Hatred against the Jews had kept the knowledge of their sanitation from the world. Two principles stand out prominent in the Jewish regulations. The Hebrews insisted on cleanliness and temperance. Cleanliness was the first condition of health, and the discrimination between clean and unclean food was shown by the rabbi by frequent scriptural quotations. The regulations concerning food were supplemented by those concerning conjugal life and purity. Violation of marriage vows was punished with death. Sanitary activity extended over both public and private interests. The dead were decently buried though they were friendless. The principle of temperance was no less carefully observed. The Mosaic code did not favor asceticism or austere abstemiousness. The use of wine was allowed. It is an error that the Jews do not and did not use fermented wine on the feast of the Passover. Wine is not wine unless fermented. Hebrew and Greek passages were cited in proof of this. Indeed there would be no merit in the moderate use of that which cannot intoxicate. A Talmudic fable illustrated satan's use of wine and the abuse frequently made of wine. Intemperance was strictly forbidden by the Jewish code, and most impressive words are used against it as the source of crime and degeneration. The intemperate and gluttons were punished by being stoned to death publicly (Deuteronomy 21:18-21). And this very thing has such a great influence upon the Jews, that not only as the Talmud says, was this law never enforced, but is it not true, even now-a-days, that one rarely finds any drunkards among Jews? Now you see a striking resemblance between our modern sanitary provisions and those prescribed by the Mosaic code. But we see, at the same time, while our modern sanitary regulations do not much interfere with the habits and manners of the individual life, the Mosaic law draws even these into the sphere of its codification, and regulates them without encroachment in the realm of individual freedom.

In the first evening session, Mr. Frank Wells, of Lansing, Michigan, read a paper on "History of Investigations Concerning Micro-organisms, and the Germ Theory of Disease." Everything is filled with these minute beings. These spirits of the air are ever contending for an existence, the life germs and the death germs. The old theory that decay is a process of oxidation has given way to the new one that this process is caused by living organisms, which cause apples to decay, eggs to become addled, and yeast and other things to ferment. The paper described the long contest between the disciples of Darwin and their opponents whether there was such a thing as spontaneous generation of life, or the apparent evidences of this were merely produced by organisms contained in the air and other mediums. The history of science, the speaker remarked, was a history of the overthrow of beliefs, and such was the fate of the theory of spontaneous generation. The struggle between these two theories passed through an eventful course. One young chemist, Louis Pasteur, doubted the efficacy of the tests that had been relied on to prove spontaneous generation, and produced experiments that for a time settled the matter. A rival inclosed a wisp of hay in a receptacle filled with artificial air, the air having been submerged in mercury, which was assumed to cut off all traces of living organisms, and succeeded in showing the development of life in the hay after those close precautions. Pasteur, however, reversed the conclusions of the demonstration by showing that mercury itself was a medium for carrying the organisms and must have supplied such to the hay. He then procured air from places where the atmosphere was little laden with germs. Those which were freest were from up on the Jura, and were taken from the stratum of a strong wind in the high atmosphere. With these specimens of air that were shown to be in most cases wholly free from organisms he showed that the union of air with putrescible liquids did not produce animalculæ. Tyndall's tests, showing that the clearing of the air, by passing it through flame, demonstrated the materials in it to be organic matter, and his final and conclusive tests with test-tubes in an isolated chamber, putting an end to all further dispute, were also described.

The similarity of certain contagions to fermentation early led to a suspicion of the germ theory of disease. The paper described one of the early demonstrations in a particular class, the near annihilation of the silk-worm industry in France, and loss of $20,000,000 a year; the appeal to Pasteur to investigate, and his almost instant discovery that the disease was caused by a minute organism, and the complete remedy he suggested in having the silk-worms raised from eggs free from the infection. His experiments in identifying the cause of sphenic fever in sheep and cattle, and chicken-cholera in fowls, and demonstration of a remedy in vaccination, were also described. His experiments showed that the virus could be used to protect against itself, going so far as to silence all doubters. Lister showed that bad results of surgical operations were due in great part to microbes. Dr. Koch made the discovery that consumption was due to bacilli, which seized on people predisposed to it. The saliva and fluids of the alimentary canal furnish a medium for the disease germs. The cholera bacillus was soon afterwards discovered. The possibility of vaccination as a preventive was foreshadowed. Those organisms were found to be enormously productive, multiplying to the extent of 16,000,000 for one in twenty-four hours. The paper also described the more recent experiments of Pasteur on rabies; the inoculation of a rabbit by trepanning its brain and infecting it with the virus; then transmitting it from one rabbit to another through a long series till the virus was attenuated, and could safely be used for inoculation.

Professor V. C. Vaughan, M. D., Ph. D., member of the State Board of Health, delivered an address on "Disinfection." It is the office of disinfection to destroy the germs described by Mr. Wells's paper. The difference between disinfection and antiseptic properties must be kept in mind, the agency of the latter being to retard decay. A common instance is the use of salt; another, that of smoking meats to preserve them, the creosote of the smoke being the active agent. A disinfectant is a germicide, and many of these germs can be killed if we can find out where they live. Germs multiply by a process of dividing themselves or through spores, analogous to seeds. Disinfectants are of two classes, as they destroy the germs themselves or their seeds. Fire is one of the best disinfectants. Steam is next to fire. When heated to the degree required for twenty-five pounds pressure it is very valuable, and can be applied to articles through the medium of a tight box. It is impossible to disinfect a room while occupied by human beings. Among the common disinfectants a good one is corrosive sublimate, using two ounces of the solution to a gallon of water. Chloride of lime, eight ounces of the solution to a gallon ot water, is good, but does not want to be placed in a saucer; puf a quart of it in the commode that received the excreta. The burning of sulphur to purify a room, as after diphtheria, is effective. The room should be made tight. Use three pounds of sulphur to every one thousand cubic feet of room space. The room can be opened and aired after twelve hours. Professor Vaughan also dwelt on the means taken by physicians and nurses to prevent taking a contagion or carrying it in their clothing.

SECOND DAY.

"The Sanitary Aspects of the Proposed Straightening of the Kalamazoo River," by George T. Pierson, City Engineer of Kalamazoo, was purely of local interest.

"Healthy Homes," by Professor Victor C. Vaughan, of Ann Arbor, was devoted mainly to the homes of the working classes, but the principles stated were of interest to all classes. A cottage may be as healthy as a palace, but it must stand on soil in which there is no animal, and not much vegetable, matter. A house on damp ground breeds consumption. A layer of cement, impermeable by gases, should be placed beneath the floor. The cellar should have windows hung on hinges, kept open when practicable. Use no arsenical wall paper. A good druggist can make the arsenic test at small expense. Make the floors of hard wood, and have tight joints. Rugs are preferable to carpets. Do not shut out the sun; faded carpets are not so bad as faded cheeks. Have the living rooms on the sunny side of the house. The kitchen is the most important room in the house; if it is filthy and unhealthy, all else is vain. It should have a window on two sides, and an independent ventilating shaft. Have both window sashes movable in all the rooms. Houses built without ventilation can be partially ventilated by a short board, setting under the lower sash, leaving a space where the sashes join. A room heated by a stove can have a good air snpply brought into the room by a pipe, opening into a jacket around the stove. Ventilation can be had by a pipe leading from near the floor to the chimney; but a chimney should have one flue for smoke, and another for foul air. Water is a great source of disease. When a cistern is filled from the roof, it should be arranged so that the first washings of the roof in a storm can be turned off from the cistern. Build the cistern so that the soakage from the surrounding surface is impossible. With regard to the disposition of excreta the professor preferred the dry-earth system, the accumulations being removed semi-monthly. It costs less than five dollars a year, and does not admit of contamination. Garbage should be burned. Cess-pools should be water-tight, ventilated and emptied once a month.

A paper on "Sanitary Condition of Public Buildings in Kalamazoo" was read by Dr. John H. Kellogg, of Battle Creek, member of the State Board of Health. He had made a personal examination of the churches, jail, and school buildings of Kalamazoo in regard to their heating and ventilation. The paper was of general as well as of great local interest. Besides a description of the needs of the several buildings examined, he gave a good outline of the principles of heating and ventilation. He was followed by Dr. C. B. Cornell, on "Need of a Public Hospital in Kalamazoo."

In the last session of the Convention, there were three papers on "Personal Duty of the Citizen Touching the Prevention and Spreading of Communicable Diseases," one from the standpoint of the lawyer, by Judge A. J. Mills; from the stand-point of the clergyman, by Reverend F. Z. Rossiter, of Kalamazoo; and from the stand-point of the health officer, by Dr. Foster Pratt, of Kalamazoo. Judge Mills specified the several classes of laws relating to public health which it is the duty of the citizen to uphold, by coöperating with the health authorities. Reverend F. Z. Rossiter dwelt upon the peculiar traits of each of the dangerous communicable diseases. He took a model city which he called Fair View, and outlined objectionable conditions as well as desirable conditions in such a place.

Reverend R. E. Jones, of Kalamazoo, said if the public would not uphold the officers, the law could not be enforced. It is the duty of the citizens to uphold the officers, and of the officers to enforce the laws which they have sworn to enforce.

Dr. Foster Pratt, of Kalamazoo, asked attention to the fact that scarlet fever and diphtheria are dangerous and fatal diseases, causing deaths compared with which the deaths from small-pox are insignificant; yet that people do not fear them shows that they do not understand the facts. Citizens should inform themselves on these subjects, and then they should cooperate with the officers of local, state, and national boards of health for the exclusion, prevention and restriction of communicable diseases.

The president of the convention, Judge Severens, before the close of the session, said that the purpose of the convention had been noble. The statutes of the State in an early day on sanitary subjects were of no account, but of late a scheme had been developed which showed some good sound sense. These conventions are for the benefit of the people. The attendance had been light, but the publication of the papers would instruct and benefit many others. Great good, he thought, would be accomplished throughout the state by the continuation of conventions of this kind.

HEALTH IN MICHIGAN DURING MAY.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of May (four weeks ending May 29), 1886, as follows, the diseases being arranged in the order of their greatest prevalence:

Rheumatism, neuralgia, consumption of lungs, intermittent fever, bronchitis, tonsilitis, diarrhœa, influenza, remittent fever, erysipelas, pneumonia, whooping-cough, inflammation of kidney, inflammation of bowels, diphtheria, scarlet fever, measles, typho-malarial fever, dysentery, cholera morbus, cholera infantum, puerperal fever, cerebro-spinal meningitis, inflammation of brain, membranous croup, and typhoid fever (enteric).

For the month of May, 1886, compared with the preceding month the reports indicate that diarrhœa and measles increased, and that influenza, bronchitis, pneumonia, and tonsilitis decreased in prevalence.

Compared with preceding month the temperature in May, 1886, was higher, the absolute humidity and the day and the night ozone were more, and the relative humidity was the same.

Compared with the average for May in the eight years, 1879 to 1886, intermittent fever, measles, pneumonia, remittent fever, and bronchitis were less prevalent in May, 1886.

For the month of May, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature and the absolute humidity were about the same, the relative humidity and the day and the night ozone were more.

Including reports by regular observers and others diphtheria was reported present in Michigan in the month of May, 1886, at fifty-one places, scarlet fever at thirty-nine places, measles at twenty-one places, and typhoid fever at six places.

Reports from all sources show diphtheria reported at eleven places more, scarlet fever at eight places more, typhoid fever at two places more, and measles at twelve places more in the month of May than in the preceding month, April, 1886.

Henry B. Baker, M. D., Secretary.

Lansing, June 8, 1886.

EDITORIAL PERISCOPE.

PERITONEAL SURGERY.

An article by Mr. Lawson Tait, under the title of "One Hundred and Thirty-nine Consecutive Ovariotomies Performed between January 1, 1884, and December 31, 1885, without a Death," published in the *Lancet* for May 15, 1886, called forth some very pertinent remarks from the editor of that journal, in which he says: "The relative claims of specialists are better left to the judgment of competent critics outside of their speciality. The profession and humanity are, after all, more concerned with the improvements which have been established, than with the surgeons who have established them." And then is further stated: "If ovariotomists would never attack each other's methods again, either in print or at societies, the profession would be relieved of something highly objectionable, and the dignity of an important speciality would be greatly increased."

In his article Mr. Tait calls attention to the improvements that have been made in ovariotomy during the last eight years when Sir Spencer Wells had reduced the mortality to twenty-five per cent., while now there is at the hands of Mr. Tait a mere fractional mortality, due to influences of a purely accidental kind. This success in abdominal surgery has been the basis of a large number of lessons applicable within its own range, and not without benefit to other fields. "It has," says Mr. Tait, "absolutely destroyed our fear of the peritoneum, and has justified our opening that sacred sac very much as we open our pockets. It has revolutionized our notions of pathology in some directions, and has confirmed them in others." Upon the subject of peritonitis, Mr. Tait's views as to the proper treatment, are just the opposite to that usually taught, and call for very serious consideration. Upon the slightest indication of peritonitis after an ovariotomy a rapidly acting purgative is given, "it matters not what; the patient's bowels are moved and the peritonitis disappears." He has thrown aside the teachings that makes opium the sheet-anchor of the practitioner in all abdominal troubles, and forbids opiates in his practice, "unless they be required to ease a dying patient out of the world." He treats suppurative peritonitis just as he would treat any abscess: the abdomen is freely opened, the pus drawed away, and the cavity washed out. This is following out a recognized surgical principle so practical that other surgeons are coming to his conclusions on this subject: "When in doubt open the abdomen." The doubt being that the patient will not improve if left alone. We have seen in two cases where doubt existed, this method carried out with successful results. Among other cases this one is cited:

Many years ago he introduced a zinc pellet into the uterus for the arrest of extreme menorrhagia due to a myoma. She died in fourteen days, and the postmortem revealed a large quantity of pus, all of which could have been drained out by an abdominal section. Mr. Tait claims to have been taught three great lessons by this case: "First, that tinkering with the inside of the uterus occupied by a myoma is not satisfactory, and more dangerous than removing the appendages; second, that fatal peritonitis may occur with a low pulse, and a low temperature;

third, that suppurative peritonitis might be treated like any other abscess."

Mr. Tait claims to have improved the method formerly used for cleansing the peritoneum. Instead of sponging and drying out the cavity, the abdomen is filled with blood-warm water, and all the organs washed, and this repeated until the water comes away clear. He further states: "And I wish to say that the water used has not been boiled, and contains no drugs or chemical substance beyond what is stated in the report of the Medical Officer of Health for the borough. The water is plain unfiltered tap-water warmed by the addition of enough from the boiler. It is full of germs and spores and small beasts of thirty-four different kinds."

As to the dressing of the wound he adhers to the dry absorbent cotton-wool, quite free from any kind of germicide: "My fear of germs has steadily diminished; so that, if I could get them in sufficiently large quantities, and found them dry, elastic and absorbent, I would willing stuff my pads with them instead of wool."

Some other points, advocated by Mr. Tait, which differ from other operators are: that he makes short incisions through the abdominal walls. He is extreme in his views when he states that a two-inch incision increases the difficulties of the operation only "in the hand of a bungling operator." He adheres strictly to the silk ligature used in the method known as the Staffordshire knot. It is thus seen that Mr. Tait has made and established many bold innovations, while he advocates some upon which there is yet room for free discussion.

EVOLUTION IN MEDICINE.

The Bowman lecture on Ophthalmology and Diseases of the Nervous System was delivered this year by J. Hughlings Jackson, physician to the London Hospital and to the Hospital for Epilepsy and Paralysis. It is of such a philosophic tendency that the *British Medical Journal* analyzes it in the following words:

The influence of the theory of evolution—or perhaps it would be more correct to say of the mode of thought which has found expression in that theory—upon scientific progress in this country, has been very remarkable. No department of science, from astronomy to psychology, has escaped its transforming touch; it has proved itself one of those large hypotheses which mark an epoch in the history of science. Medicine, which is rather a complex of sciences than a science, is at length beginning to feel the impetus in various departments; and the Bowman lecture this year is a striking example of the way in which a keen observer and careful thinker, thoroughly imbued with the evolutionary principle, looks at the facts of a certain department of pathology. The main object of the address was to show forth the necessity for differentiation of work, but differentiation combined with co-operation. In the progress of evolution, said Dr. Hughlings Jackson, four stages or degrees were to be discriminated; and scientific investigation must be governed by this condition, and can, therefore, be regarded as the product of the inter-action of four influences. The advance of science depends upon increased differentiation of work and definiteness of observation combined with increased integration of knowledge and co-operation of workers. Numerous illustrations of the advantage to be obtained from this integration and co-operation were drawn from neuro-pathology; but the greater part of the lecture was devoted to an exposition of the pathology of epilepsy, which was chosen because it presented the greatest complexity of symptoms. For the full comprehension of true epilepsy, the co-operation of the physiologist, the alienist physician, and the ophthalmic surgeon, with the neurologist was required. "Epilepsy," said Dr. Hughlings Jackson, "is a disease of the organ of mind—that is to say, of the highest and most complex centres;" and the organ of mind, he added, was nothing else than a series of centres representing (or co-ordinating) all parts of the body. He advanced the hypothesis that the whole nervous system was a sensori-motor system, in which all parts of the body were represented at three different levels or stages of evolution, integration, and intercommunication increasing from the lowest to the highest level; so that, in the highest centres, larger areas of the body were brought into connection with each other, while at the same time function was more differentiated.

Tabes dorsalis, Graves's disease, and diphtheritic paralysis, were given as good examples of diseases in which the centres at the lowest level of evolution might be affected along their whole extent. In the last named affection, for instance, every organ, from the ciliary muscle of the eye to the muscles of the feet, including the thoracic, abdominal, and pelvic viscera, may be involved. Epilepsy, being a disease of the organ of mind, is at the opposite pole; and Dr. Jackson set himself to show that that disease presented an universal symptomatology, or, in other words, that every department of the nervous system is involved. In epilepsy every muscle, and in the "warnings" of epilepsy every sensory area, from the nose (first cranial nerve) to the feet might afford symptoms; and after the fit there is universal paralysis of both animal and organic parts; and not only mental paralysis (coma, unconsciousness), but paralysis to a slighter degree of the lower centres also.

Sir William Gull, after the lecture, said that Dr. Hughlings Jackson was the greatest living worker, as he was also the most honest and most disinterested, in the field of neuropathy; certainly, he has given us, in his Bowman lecture, as he never fails to do in all his public utterances, much food for thought, and many suggestions to guide future observation and research. But he is not a prophet who prophesies smooth things; he sees and feels the complexity of the problems which he attacks, and he takes no pains to hide the difficulties which exist, both in the facts themselves and in the hypotheses by which it is attempted to explain them. Sir William Gull also said that Dr. Jackson had made his hearers feel that they had been all unprofitable servants, the field of work glanced over was so large, the workers so many, but the work so unmethodical, desultory and scattered. Every observer may, as Mr. Macnamara well said, make definite accurate observations in his own department, though it was reserved for the few to analyze the observations and combine them as the Bowman lecturer had done this year, stringing them on the serviceable thread of a convenient working hypothesis.

CONDENSATIONS.

Mr. Tait operates in his own hospital, keeps his patients under his own observation, under his own hands, watching them with much care, and exercising the greatest cleanliness.

Carbolic Acid internally, two to four drops, is a better antacid in indigestion than any alkali. It arrests fermentation, and usually gives quick relief in nausea and vomiting of pregnancy.

Dupuytren was accustomed to say to his students: "Had not Monsieur Dupuytren been so poor that he was obliged to trim his students' lamp with oil from the dissecting room he never would have become Monsieur Le Baron Dupuytren."

Treatment of Carbuncle.—At a meeting of the Philadelphia Academy of Surgery, Dr. James Collins stated that he had for some time treated carbuncle by free incision, scraping out and washing out with corrosive lotion. Patients have done better under this than any other method. Dr. S. W. Gross described the procedure as "far the best operation yet suggested."

The Anthropological Congress which is soon to be held at Rome will have a curious feature in a collection of skulls of criminals, numbered and classified. To these will be added the photographs of three thousand and the brains of more than one hundred and fifty convicts, thousands of autographs, poems, sketches and special instruments, the work of criminals.

Tender Points in Chorea.—Marie draws attention to the fact that in the true chorea of Sydenham tender points have been described over the spine, the thorax, and the abdomen. In addition to these, however, he has noted a number of cases in which there was tenderness over the ovary also, and that this is present on the same side as that on which choreic movements first appeared.

THE NAPE OF THE NECK.—Dr. Brown-Sequard says that a "cold" usually results from the reflex influence of cold air upon the sensitive nerves of the nucha. He proposes to overcome the peculiar sensitiveness of these nerves by blowing with a pair of bellows upon the neck, using first warm air, which is to be gradually cooled until the patient can stand any sort of a draught of air without sneezing.

MICROBES NOT ESSENTIAL FACTORS IN DISEASE.—In a paper read before the Paris Academy of Medicine, Dr. Colin opposed the theory of microbes being the cause or carriers of the infection of septic and zymotic maladies. It cannot be regarded as proven that these agents produce their alleged effects, until such effects are produced by their being introduced into the system through the medium of pure water.

DISEASE OR HEALTH.—"The great question at present to be settled is," says Dr. Loomis in a recent lecture on bacteriology, "whether we are about discovering the ultimate cause of many hitherto obscure pathological states, or whether these microbes are only bacteria of health taking advantage of diminished vitality to develop with increased rapidity,—whether they are the cause or the scavengers of disease."

A QUICK FILTER.—Mr. C. F. Nixon says: "Take a clear piece of chamois skin, free from thin places, cut it of the desired size, wash it in a weak solution of sal soda or any alkali to remove the grease, and rinse thoroughly in cold water before using. Tinctures, elixirs, syrups and even mucilages are filtered very rapidly. A pint of the thickest syrup will run through in four or five minutes. By washing thoroughly after each time of using it will last a long time."

NEUTRAL SALT OF QUININE.—M. De Vrij, of the Hague, well known for his researches on cinchonas, read a paper, (Paris letter to *British Medical Journal*) at a recent meeting of the Academy on the composition of the sulphate of quinine sold by the principle chemists and druggists. He recommended physicians to prescribe neutral instead of acid sulphate. The latter varies in composition; the neutral sulphate is always pure; hydrochlorate of quinine is also pure.

ANOTHER case showing the communicability of contagious diseases by clothing is reported from Bath, Maine, where a girl had scarlet fever at a boarding school. After recovery she returned home and a trunk containing the clothing she wore while sick was put away in the garret. Six months later two little children were playing in the garret and opening the trunk, took out some of the clothing. In a week both were taken ill with the disease and one died. There were no other persons ill with scarlet fever in the community.

TREATMENT OF ACUTE CORYZA.—Dr. S. S. Cohen gives one one-hundred and twentieth of a grain of atropia every four hours until there is dryness of the throat. Afterwards to relieve the unpleasant symptoms of dryness, he gives one-sixteenth of a grain of pilocarpine. When cases are seen too late to use atropine with advantage, he has obtained good results from ammonium salicylate, ten to fifteen grains every two hours until tetanus aurum is produced. Cocaine can be used to allay local symptoms until the medicine has had time to act.

M. PASTEUR announced at a recent meeting of the Academy of Sciences, Paris, that he had treated the following number of people from different countries for bites from mad dogs: France, five hundred and five; Algeria, forty; Russia, seventy-five; England, twenty-five; Italy, twenty-four; Austro-Hungary, thirteen; Belgium, ten; North America, nine; Finland, six; Germany, five; Portugal, five; Spain, four; Greece, three; Switzerland, one; Brazil one: making a total of seven hundred and twenty-six. The results of the treatment are not fully determined, but are satisfactory as far as known.

EXCISION OF THE RECTUM FOR CANCER.—Professor Macleod, of Glasgow, considers that this operation may be very useful in a limited number of well selected cases. He has operated seven times and concludes from these cases that life may be prolonged and suffering much alleviated. He considers that hæmorrhage need not be feared, provided the knife is used only for the skin incisions, and the fingers with the occasional snip of a pair of blunt-pointed scissors, employed to separate the rectum from its surroundings. To remove the portion of bowel, he recommends splitting it with the thermal cautery, and separating it with the cautery or ecraseur.

OVARIOTOMY.—In a report of one hundred and twelve cases of laparotomy performed by Mr. Lawson Tait without a death, "has carbolic acid or thymol, or corrosive sublimate, or any of the multifarious germicides touched my patients either directly or indirectly." He attributes his "growing success" to "increased personal experience, increased attention to all the minute details which go to create success, and inattention to any one of which may defeat the best laid plans. In addition to these I may add scrupulous attention to cleanliness, and an undeviating enforcement of discipline, both on the part of the patients and my staff of assistants."

NATIONAL HEALTH LEGISLATION.—Concerning this question Dr. John H. Rauch expresses his opinion as follows: Whether by the rehabilitation of the national board, or by the creation of a new organization, it is the duty of congress to complete the health defenses of the country. Municipalities have their legitimate sphere within which they alone can act and are responsible, and next beyond which the authority and resources of the state are demanded. But neither municipalities nor states can protect themselves against foreign pestilence without the assistance of the national authority, nor can they properly guard themselves against inter-state infection or contagion without the coöperation of the same authority.

ARTIFICIAL MEMBRANA TYMPANI.—Dr. Barth, of Berlin, has suggested a very good modification of the ordinary cotton-wool membrane as follows: Take a piece of cotton-wool, and pull or twist out one end of it to the length of four centimeters, leaving a tuft at the other end. The handle thus made should now be dipped in collodion and the whole, supported by means of the tuft through the mesh of a cain-seat chair, allowed to dry. In the course of five or ten minutes the handle or shaft should be again twisted, best with moist fingers, and there is then provided a strong shaft of cotton-wool one to two millimetres thick with a brush-like tuft, which can be further trimmed by the scissors as required. This artificial membrane is so simple and so easily made that every intelligent patient can make it, if he is obliged to wear such an aid for any length of time.

"THE press of the country is to a certain extent subsidized by quacks," is a statement, only too true, made by Dr. Frothingham in a recent address, who adds: "Only a few, like the *New York Herald* and *Our Country*, resist the seductive influence of the almighty dollar, and refuse to insert quack advertisements. The habit has been defended even by religious journals on the plea that the insertion of the advertisement is no endorsement of the remedy. This is an error. The public regard the insertion of an advertisement of a paper as evidence that *in the opinion of the editor* it is *not* a fraud. It is from this reason, that is, the supposed moral weight of the publication, that the readers of religious papers are most imposed upon by quack nostrums. And yet the editors of these papers profess to see no impropriety in thus encouraging quackery, parading deceit, and insulting a great profession."

Circulating Libraries and Infectious Diseases.—A very full report has been presented on the above subject to the Aberdeen Public Health Committee, by its Sanitary Inspector, and there can be no doubt that it draws attention to what is a very possible source of disease. Books taken from a circulating library, and read in a room where infectious disease exists, if returned without being properly disinfected, may transmit the poison of fever as effectually as any portion of clothing or bedding. This may take place sometimes from mere thoughtlessness, especially among the less intelligent classes of the community, who are often apt to regard the ordinary precautions against infection as overstrained and unnecessary; the report, therefore, very wisely suggests that, when sanitary officers visit premises where infection exists, they should ascertain if any of the household are in possession of books from any of the public libraries; and, if so, that they should see that the volumes are properly fumigated.

Cremation in France.—The *London Daily News* says that decorative artists and sculptors are preparing to adapt themselves to the crematory movement, which has now in its favor a vote of the municipal council, adopting the plan of a mortuary furnace, and granting a site in Pѐre Lachaise, where it will operate early in 1886. The expense of cremation is not, it is settled, to exceed fifteen francs. The municipality will, at a future sitting, vote the construction of a sort of lay temple, where families will be allowed to keep urns or other funeral vessels, containing the ashes of dead relatives. This will not necessarily do away with any religious ceremony, short of that of consigning the dead to consecrated ground; but, as M. Kœchlin Schwartz says, "There is no reason why urns may not be consecrated, or why Protestants, Catholics, Jews and Free-Thinkers may not subscribe to build a vast mausoleum in which the ashes of thousands could be deposited in beautiful vessels without injury to the living." It is probable that, cremation being now legal in such an art centre.as Paris, new and beautiful forms of artistic decoration will grow out of it. The time required for the combustion of an adult be two hours.

NEW PUBLICATIONS.

CHOLERA: ITS ORIGIN, HISTORY, CAUSATION, SYMPTOMS, LESIONS, PREVENTION AND TREATMENT. By Alfred Stillé, M. D., LL. D., Professor Emeritus of the Theory and Practice of Medicine in the University of Pennsylvania. Octavo. One hundred and sixty-four pages. Cloth, $1.25. Philadelphia: Lea Brothers & Company, 1885.

A year ago, when the general public, as well as the medical profession, were fearful of the probable appearance of cholera in this country, the author very timely published this little work. But whether cholera does or does not visit this continent, the work will be valued by the profession because it contains the views of this learned and distinguished author. Dr. Stillé has had the "painful advantage" of studying this disease during two epidemics. For this reason the author claims that the subject has always had a peculiar attraction for him.

Dr. Stillé, while declining to accept the doctrines of Koch and others, who regard the disease due to a material germ, he points, by evidence drawn from its origin and mode of propagation, the specific nature of cholera. Upon the question of sanitary laws for its prevention, the author is clear and forcible in his remarks. "The ethics," he says, "which justified the introduction of opium into China by the English, and the American gift of alcohol to the Indian, to gratify a lust for lucre or for land, is only paralleled by those contained in the official protests against cholera quarantines."

In the treatment the anti-bacterial theory is shown to be illogical and unscientific. What the author gives upon the treatment is, first, for the management of cholera in general, and, second, the consideration of some of the particular medicines used in its treatment. He has no new method, and clearly states his reasons for preferring a rational system of treatment.

BRAIN-REST. Being a Disquisition on the Curative Properties of Prolonged Sleep. By J. Leonard Corning, M. D., Formerly Resident Assistant Physician to the Hudson River State Hospital for the Insane; Member of the Medical Society of the County of New York, of the New York Neurological Society, of the New York Academy of Medicine, of the American Neurological Society, of the Society of Medical Jurisprudence and State Medicine, of the Physicians' Mutual Aid Association; Physician to the New York Neurological Infirmary; Author of "Carotid Compression," "Brain Exhaustion, with some Preliminary Considerations on Cerebral Dynamics," "Local Anæsthesia in General Medicine and Surgery," etc. Second edition, revised and enlarged with additional illustrations. Royal 12mo: one hundred and thirty-five pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1885.

In this little work the author has advocated a scheme of treatment for insomnia, cerebral exhaustion, and other forms of functional brain affections, the chief features of which are prolonged sleep, increased general and cerebral nutrition, elimination of psychical irritation and sensory impressions, particularly those of light and sound. These factors he has classified under the general designation of Brain-Rest.

The author is emphatic in his statement that cessation in cerebral activity can be induced and prolonged without the inordinate drugging, and describes several methods of diminishing the cerebral circulation. He has constructed an instrument which he designates the "carotid truss," by means of which it is possible to compress the carotids for any desired length of time. Another procedure, which is termed the "Electro-Mechanical Tonus of the Cortical Blood-vessels," consists in the application of the galvanic or faradic current to the sympathetic and pneumogastric nerves, while at the same time the stems of the common carotid arteries are moderately compressed. Some of his therapeutical measures, as designated, have this in their favor, in that they are original. The strong style of the book shows the conviction of the author to the views advanced. It cannot help benefiting all who read it, and the little book must be regarded as a legitimate and valuable addition to medical literature.

THE FIRST THREE YEARS OF CHILDHOOD. By Bernard Perez. Edited and Translated by Alice M. Christer, Translator of "Child and Child Nature," etc. With an Introduction by James Sully, M. A., Author of "Outlines of Psychology," etc. 12mo: two hundred and ninety-two pages. Price, $1.25. Chicago: A. N. Marquis & Company, 1885.

While this work is written on a simple scale, it is one of the fullest monographs of the study of infant psychology. It takes up the various phases of infant life, and follows out the gradual awakening of those faculties which constitute the psychic activity of the adult human being. The study of infant psychology is a new field for investigation, which modern science has opened up. In this study some of the gravest questions relating to man's nature and destiny must of necessity be considered. Is conscience an innate faculty; or is it a mere outgrowth from the impressions received in the course of training obtained by external human influences? Is the unfolding of human intelligence through child-life a record of long ages of human experience and still longer cycles of animal experience? These and kindred questions are here considered by one who combines physiological and psychological knowledge with a practical interest in education.

M. Perez proves by his little work that he possesses the proper qualifications to observe and interpret the infant mind. Nothing, perhaps, has been more misunderstood than childhood. We cannot see the infant's mind with its "whims" and "notions"; it can only be divined. The observer must think himself into the situation and circumstances of the child; he must learn to interpret every movement and sound, he must see them as they actually are. To M. Perez every action and voice, and even the dreams of children, are made the subjects for his keen observation, and receive illumination from his bright intellect.

M. Perez is best known, perhaps, as a writer of pædagogic literature. He looks at the infant from an educator's point of view. He knows that the child's education begins with its first awakened faculty; and his book abounds with practical hints on the proper training of the very young, and forms a practical guide to the parent and the teacher.

BOOKS AND PAMPHLETS RECEIVED.

OUTLINES FOR A MUSEUM OF ANATOMY, PREPARED FOR THE BUREAU OF EDUCATION. By R. W. Shufeldt. Washington: Government Printing Office, 1885.

MEMOIR OF AUSTIN FLINT, M. D., LL. D. By A. Jacobi, M. D., President of the New York Academy of Medicine. Reprinted from the *Medical Record*, April 24, 1886. New York: Trow's Printing and Bookbinding Company, 1886.

THIRD ANNUAL REPORT OF THE NORTH-WESTERN HOSPITAL FOR WOMEN AND CHILDREN, MINNEAPOLIS, MINNESOTA. For year ending November 1, 1885. Minneapolis: Johnson, Smith & Harrison, Printers, 1885.

THE GENUINE WORKS OF HIPPOCRATES. Translated from the Greek, with a Preliminary Discourse and Annotations. By Francis Adams, LL. D., Surgeon. In two volumes. Volume I. Being Volume IV of Wood's Library for 1886. New York: William Wood & Company.

A LECTURE ON THE CODE OF MEDICAL ETHICS. By Professor George E. Frothingham, M. D., Professor of Ophthalmology, etc., University of Michigan. Delivered before the Students' Medical Social Science Association, December 15, 1885. Published by Request. Tecumseh, Michigan: *Herald* Printing House, 1886.

DISEASES OF THE CIRCULATORY AND RESPIRATORY APPARATUS. Illustrated by One Hundred and Three Fine Wood Engravings. Being Volume I of the Hand-book of Practical Medicine. By Dr. Hermann Eichhorst, Professor of Special Pathology and Therapeutics and Director of the University Medical Clinic in Zurich. In four volumes. Being Volume III of Wood's Library for 1886. New York: William Wood & Company.

DISEASES OF THE SPINAL CORD. By Byron Bramwell, M. D., F. R. C. P. (Edinburgh), Lecturer on the Principles and Practice of Medicine, and on Medical Diagnosis in the Extra Academical School of Medicine, Edinburgh; Pathologist to the Edinburgh Royal Infirmary, etc. Illustrated by fifty-two full-page lithographic plates, in colors, and many fine wood engravings. Being Volume I of Wood's Library for 1886. New York: William Wood & Company.

INSANITY AND ITS TREATMENT. Lectures on the Treatment, Medical and Legal, of Insane Patients. By G. Fielding Blandford, M. D., (Oxon.), Fellow of the Royal College of Physicians in London; Late Lecturer on Psychological Medicine at the School of Saint George's Hospital, London. Third edition. To which is added TYPES OF INSANITY: An Illustrated Guide in the Physical Diagnosis of Mental Disease. By Allan McLane Hamilton, M. D., one of the Consulting Physicians to the Insane Asylums of New York City, and the Hudson River State Hospital for the Insane. Illustrated by ten plates from photographs of cases selected as types, with descriptive text. Being Volume II of Wood's Library for 1886. New York: William Wood & Company.

MEDICAL DIGEST.

THE ETIOLOGICAL CONNECTION BETWEEN INFLAMMATION OF THE GUMS AND DISEASE ELSEWHERE.

That there is a connection between the process of dentition in children and certain affections, such as regularly occurring convulsions, vomiting, constipation, diarrhœa, cough, and skin eruptions, both physicians and experienced mothers will not allow to be disputed; but in the opinion of the author the origin of these should be sought less in the teeth than in the condition of the gums. The gums of children who cut their teeth with difficulty are not only swollen, but more or less reddened, dry, tense, shining, and of raised temperature, not in the neighborhood of the expected teeth alone, but frequently along the course of the jaw. The tooth has often really broken through, but is concealed by the swollen gum. The author, possessed with the idea that the essence of most inflammatory processes consists in an infection by micro-parasites, proceeded to treat the swollen gums and cavity of the mouth with a solution of tincture of iodine in common salt (chloride of sodium, one per cent.; tincture of iodine, five-tenths per cent.). A half to a teaspoonful of this solution, according to the age of the child, is applied every quarter or half hour. He found that, simultaneously with the paling of the gums, the concomitant catarrh of the respiratory and digestive mucous membranes, the feverishness and reflex nervous phenomena came to an end, without the use of other means than a simple purgative. Further observation of this connection between diseases of the gums and other affections, led the author to apply the same treatment to adults.

That the cavity of the mouth, which is the great entrance gate through which organisms find their way into the body, should be first attacked by them is not surprising;. swollen gums form a suitable nidus for their development. A receptive state of the mouth is produced in children by the mechanical injury done to the gums by hard teething rings, and in adults by artificial teeth, plates and the like, and by chemical substances. But the greatest share in the process is played by the teeth. They irritate mechanically when they are decayed; chemically when they are foul, and functionally during their eruption. Toothless people, children, old men, and persons with perfectly sound teeth, scarcely suffer from mercurial, scorbutic or phosphoric inflammation. The presence of tarter along the teeth is a constant source of irritation to the gums.

The author describes fully several different forms of inflammation, in all of which fungi, bacilli, cocci, etc., may be found on microscopic examination. The inflammation spreads from the gums to the tongue, tonsils and throat, and the result of this, on parts supplied by the nerves of taste, is invariably loss of appetite. The condition of the tongue is more an indication of the state of the appetite than the stomach. The digestion may be good but the appetite completely lost; nausea, due entirely to the condition of the tongue and mouth, prevents food being taken. It is sufficient to disinfect these to restore the appetite. Disinfection of the tongue and mouth, which are always foul in fever, cleanses them and keeps them moist, and enables food to be taken. For this purpose iodine solution is the best, as it does not destroy the teeth; but other solutions, such as ten parts of tincture of myrrh, valerian, guaiacum, eucalyptus, or galls, about twenty drops in a small glass of water, may be used instead. Only the first portions used are spit out, the remainder is swallowed and acts beneficially on the stomach. Carious teeth, if not well stopped, should be drawn out, because they continually irritate the gums and make cleansing difficult, if not impossible.

The author recognizes the part which perverse innervation plays in the production of the symptoms of dyspepsia, especially where acting on an anæmic subject, but he regards an infection of the stomach from the mouth, and fermentation of its contents as the most important factor. Chlorotic girls with sound teeth do not suffer from digestive disturbances; those with bad teeth do, and resist the usual iron treatment. Since the gravest affections of the mucous membrane of the stomach may exist without symptoms, provided the movability of the organ is not interfered with, it follows that catarrh of the stomach cannot account for the usual symptoms of dyspepsia, and the benefit derived from washing out the contents of the stomach shows that fermentative processes are their chief cause.

The author speaks favorably of the salt-herring treatment in the dyspepsia of drinkers, and of other states attended with exhaustion (such as the last stage of Bright's disease), and thinks that this otherwise not by any means digestible food acts by disinfecting the mouth in the process of chewing. He then relates some cases, one being a woman aged fifty, who had always previously enjoyed good digestion, but after a severe shock began to suffer from cardialgia, eructations, heartburn, etc. Examination of the mouth, from which a foul smell proceeded, discovered a swelling and slight inflammation of the gums, a coated tongue and reddened throat. Frequent washing out the mouth with iodine solution restored the appetite and removed the cardialgia in a few days. Interruption of treatment allowed the gums again to swell, and the dyspeptic symptoms simultaneously returned, but were relieved at once by a resort to the solution. Another patient, a man who had suffered for years from dyspepsia, and who was now so weak as to be confined to bed and fluid food only, was found to be suffering from swollen, reddened and suppurating gums. After twenty-four hours' treatment with the iodine solution the disgust for food left him, and in fourteen days his appetite was good and food well borne. So long as he continued to wash out his mouth before every meal he was free from dyspepsia, but any interruption of the treatment led to a speedy return of the symptoms.

A case of obstinate inflammation of the larynx, with asthmatic troubles, which had resisted every other form of treatment, readily yielded when an ulceration of the gum concealed by artificial teeth, was suitably treated. A similar case of paroxysmal cough, which had resisted all treatment, was cured when an inflammation of the gums and hard palate was healed.

That inflammation of the mouth may be progagated to the ear follows from the experience of Sexton, who found bad teeth to be the cause of disease of the inner ear in six hundred out of one thousand cases.

In a case of keratitis with ciliary, supra- and infra-orbital neuralgiæ, the origin of the pain was traced to a burning in the gum of a stopped tooth. The removal of the tooth was followed by the first quiet night for four weeks, and the removal of another sound tooth, which was surrounded by inflamed gum, caused a complete cessation of the pain. The inflammation of the cornea, against which the most heroic remedies had been used in vain, began to mend from that day.

Diseased gums may, the author thinks from his own observations, be found to lead by vasomotor influences to the production of glaucoma. Even distant neuralgia, as that affecting the intercostal or sciatic nerves, may sometimes be traced to the same cause. Eczema of the face in adults, as well as in children, may be produced in the same way. A case in point is narrated in detail. Neuroses, such as hysteria, epilepsy, and even disturbances of the mind in those hereditarily predisposed, have been found in the experience of the author to have their organ in bad teeth, or inflammation of the gums, and to yield to suitable treatment. Several instructive cases of hysteria in governesses are related, successfully treated in this manner. The author also points out the information furnished by the state of the gums and mouth in cachectic states, such as scorbutus.—Kaczorowski in *Deutsche Medizinische Wochenschrift.*

DIAGNOSIS OF SPINAL TUMORS.

The following abstract was made from a paper prepared by Dr. Charles K. Mills and James Hendrie Lloyd, and read before the Philadelphia Neurological Society, which considered the general and differential diagnosis of special tumors:

The conclusions were based on a study of fifty cases, three of which were personal observations, and the remainder were collected from American, English, French, and German literature. The general diagnosis—that is, the decision as to the existence of a spinal growth—can be made from a certain train of symptoms. These are of two classes: (1) Those which are directly indicative of such a lesion; (2) Those which are corroborative. The facts which point directly to a growth within the canal are: History of a constitutional or other cause, as of syphilis, cancer, tuberculosis, or traumatism. The onset and development are gradual and of a peculiar character. The first symptoms are those of an irritative lesion. This is probably due to the fact that tumors usually involve the membranes, as demonstrated by the cases studied. Hence, pain in the back or limbs is usually, but not always, present. The *sensory phenomena*, such as hyperæsthesia, anæsthesia, and paræsthesia, come on with more or less rapidity, with oscillating and irregular manifestations. *Motor symptoms*, such as paresis, spasm (tonic or clonic), contracture, tremor, ataxia, also manifest themselves in a similar oscillating manner. Exaggerated *reflexes* present themselves in most cases. *Trophic* and *vaso-motor disturbances* develop as the lesion progresses. These are such as wasting, ischæmia, œdema, and decubitus. *Visceral disorders*, such as paralysis of the bladder or rectum, or of their sphincters, and disorders of the heart and respiration, are, sooner or later, marked symptoms. Vomiting and gastric and intestinal disorders are present in a limited number of cases. Mental disorders are present in only a limited number of cases of tumors high in the spinal axis, but are not of diagnostic importance. Briefly stated, the phenomena which point with comparative certainty to the existence of spinal tumors are symptoms of meningeal irritation gradually increasing, and symptoms of slow compression of the cord. The data as to duration in the cases studied were somewhat meagre. The usual duration is from six months to three years. It may be noted that fever was present at some stage in a considerable percentage of cases, but was so irregular as not to be of much diagnostic value.

The differential diagnosis of spinal tumors was considered in reference to the following affections: Spinal congestion, hæmorrhage, meningitis, caries, traumatisms, sclerosis, aneurisms, neuritis, metallic and infectious disorders, and hysteria.

Spinal tumors are of constitutional or special origin, as syphilis, cancer, tuberculosis, etc. Onset is gradual and irregular. Duration is comparatively long. Progress is gradual, by irregular advances, toward a fatal termination. Symptoms are inclined to be irregular, that is, unilateral or local; later, bilateral. Special symptoms, as paralysis, spasm, sensory and visceral disorders, are irregular as to time. Decubitus and trophic changes are common, late. Reactions of degeneration are often present.

In *spinal congestion*, constitutional cause not present. Onset is usually sudden and after exposure. Duration is short, from a few days to four months. Disease is at first stationary, then retrogression of symptoms toward recovery occurs. Symptoms are more uniformly bilateral; motor and other symptoms develop about the same time. Decubitus is rare. Reactions of degeneration are rare.

In *spinal hæmorrhages*, there is no special history, or a history of cardiac or vascular degeneration. Onset is sudden. Progress is more regular. The first symptoms persist, and secondary degenerations follow, and differ according to extent and location of lesion, but are more likely to be uniformly bilateral.

In *meningitis*, the symptoms of localized compression are absent. The girdle symptom is absent. The affection is sometimes curable. Reactions of degeneration are absent.

In *caries*, deformity is rarely absent. Rigidity of the muscles of the back is a very important symptom.

In *traumatisms*, there is usually a history. The symptoms are those of caries, myelitis, meningitis, or combinations of these, according to character of the case.

In *sclerosis*, the symptoms are usually of progressive systemic affections. Compression symptoms are absent. Duration is longer. Progress is gradual, and more regular.

Aneurisms are only to be distinguished when extra-spinal, causing erosion and compression.

In *neuritis*, irregular sensory, motor, and reflex disturbances are present. Compression symptoms and visceral disorders being absent. It is curable.

In *metallic and infectious disorders*, a history of definite causation is present. In metallic disorders there may be special characteristic signs, such as lead line, etc.

In *hysteria* a precedent hysterical history is usual. Onset is often sudden. An emotional element is present. The symptoms are bilateral. Trophic changes are absent. No reactions of degeneration are present.

TUBERCULAR MENINGITIS.

The following notes of thirteen cases of tubercular meningitis were read by Dr. Musser before the Philadelphia Neurological Society, January 25, 1886:

All of the cases were observed in private practice, hence the lack of detail of symptoms, such as temperature, etc. They occurred in a period of six years. Nine of them were in the writer's private practice, two in institutions under his care, and two in the practice of medical friends. It may be considered a disease of frequent occurrence, for the relative proportion of its frequency to that of many other diseases, as forms of liver disease, is much in excess. The nine cases occurred in a practice ranging from fifty to four hundred families yearly, during the six years. For every case of tubercular meningitis, the writer has had twenty-five of phthisis. During the same period one case each of tubercular peritonitis and interstitial tuberculosis have been under his care. In later years the disease has been less frequently seen, corresponding with the social improvement of the practice. In the first half, six cases were observed. In the latter half, the remaining ones. The mortality tables of the "Homes" to which the writer has been physician present some interesting features in this connection. In one Home of one hundred and eighty boys, aged from three to sixteen, and thirty adults, but three cases of tubercular meningitis occurred in five years. In a Home for twenty-four colored children of both sexes, mean age seven years, the disease was not observed in four years. In a third Home for children of both sexes, about eighty in number, in the records of twelve years, no death occurred from this disease. During the same period of observation of these nine cases, five cases of hydrocephaloid disease, one of cerebro-spinal meningitis, and two of syphilitic meningitis were observed.

Causes.—Seven of the cases were males, and six females, making six of no causal influence. The ages ranged from seven months to fourteen years in twelve cases. One was thirty-two. Six of the patients were under five years, four between five and ten, and two between ten and fifteen. The ancestors of nine had tuberculosis in some form. In two other instances the children of the same generation had some tubercular affection. In only two cases was there no antecedent or coincident history of tuberculosis in the family. One of the patients, aged seven months, was nursed by a mother whose tubercular disease antedated her pregnancy.

The hygienic surroundings in the large number of cases were quite fair. Two alone could be pronounced as bad. One child has been weaned early in life, and improperly fed. The previous health of all save one or two was bad. Some remote local inflammatory foci, either of simple or specific nature, could be determined. In one, aged fifteen months, the bronchial and mesenteric glands, after a whooping-cough or diarrhœa, were diseased; asthma and bronchitis, with enlarged bronchial glands, no doubt, preceded in another; hip-joint disease, suppurating cervical lymphatics, chronic bronchitis, and phthisis, respectively, preceded in four cases. Very poor health in one instance, and "weak" lungs in another, also preceded. In one, the health had apparently been good; in two the state of health was not noted. Exposure to the sun was thought to be the cause of the twelfth, but the lad was always fragile, and had diarrhœas. The nursing baby completes the list—she was always delicate.

Clinical Course.—In general, it may be said to be irregular. In six cases the periods of invasion, excitation, and depression could be traced. In two instances the stage of invasion or the premonitory symptoms was absent entirely. In the other cases the stages were "mixed."

The following summary indicates the mode of development of the entire series. Case I, was a girl aged sixteen months; antecedent cause whooping-cough and tabes mesenterica; slight general spasm, followed in a few hours by convulsion of right side of body with aphasia. In Case II, boy aged four, with asthma, etc., there was a loss of flesh for four weeks, intermitting headache ten days, vertigo three days, was peevish and restless at night. Case III, girl aged ten years, had for one year headache and vertigo, extreme emaciation, cerebellar tumor. In Case IV there were loss of flesh, debility, restlessness and poor appetite for several weeks. The course of the fifth was not known, while the sixth had been ill ten days definitely; for a brief time loss of flesh with pain in the left temple, sleeplessness and constipation had been present. Sharp paroxysmal headache tormented the seventh case, a youth of nine, for three days prior to the meningitic explosion. Until twenty-four hours before very active symptoms occurred, the eighth case, an infant under two years, was considered in perfect health. Prolonged lassitude, fretfulness, and some emaciation, preceded the illness of Case IX, a boy of eight. For four weeks the tenth case, a precocious little girl five years old, suffered from symptoms not unlike malaria—langour, emaciation, fretfulness, irregular intermitting fever, restlessness at night, poor appetite, without vomiting or constipation. The eleventh case had phthisis, but observed that his customary hectic had quitted him two weeks before the development of the headache and vertigo, which symptoms antedated the active brain symptoms by four days. The twelfth case did not thrive as a nursing baby should, and vomited freely. A convulsion was the first warning of cerebral trouble. A little girl lost appetite, was peevish, slept poorly, was feverish and became emaciated for three weeks before the cerebral symptoms developed. She had lymphatic enlargement in the neck and abdomen. Emaciation, debility, fretfulness, night restlessness, irregular febrile movement, disorders of the gastro-intestinal tract and headache were the chief premonitory symptoms. Emaciation was the most frequent and most marked.

An analysis of the phenomena of the first and second stages would be tedious and without practical value. Reference in the succeeding notes will be made to some salient groups of symptoms, present more or less in both stages, and to peculiar manifestations of common symptoms. *Headache*, *motor* and *sensory irritations*, and *palsies* occurred in all the cases. In a few, the *headache* was distinctly intermitting. The *spasms* and *palsies* of groups of muscles were irregular in respective cases, as to order or frequency. Hourly change in the state of the muscles was common, and the same may be said regarding sensation. Not only does this apply to alterations of function of spinal, but also of cerebral nerves. Convulsions (partial, unilateral, or general), delirium, and coma were present at the usual period, but presented no peculiar feature.

Special Senses.—Total blindness was observed in one case; impairment of vision in five; optic neuritis was recorded in three. The state of the pupils was not of special import—in one instance was there irregularity in size in the second stage. In the first stage they were not affected, save contracted in one instance, and fixed, in a dilated state, in another. Dilatation was the rule in the second stage. Nystagmus was observed in one case. Purulent conjunctivitis occurred in eight cases, in the second stage usually, and in two instances was unilateral. Ptosis was present in only one case.

In five instances local erythema and general flushings were noted. An urticaria-like rash was seen in three instances. In the latter stages pallor or a bluish hue of the face was observed. A unilateral mottling of the extremeties was observed. Emaciation was marked and persistent in the prolonged cases, nine in all. Fever was present in the first stage in seven cases; in the second, in nine; intermitting in type, often with irregular paroxysms. Hyperpyrexia was noted in one. The *pulse* was slow seven times in the first stage; irregular or intermitting in four. In the second stage it was usually quickened, small, rapid and feeble; twice, slow and irregular. It was never wiry or corded in either stage.

Vomiting occurred but three times in the first stage; once only in the premonitory stage, and once only in the final stage. Constipation was seldom observed—three times in the first, twice in the second stage. Diarrhœa was excessive once. Offensiveness of the *breath* was very frequent, and occurred chiefly in the last stage, but was so marked at first, also, in three cases, as to be noted. In the larger (nine) number of instances, the tongue was heavily coated. The scaphoid abdomen occurred at varying periods: once in the first stage, seven times in the second stage, while three times it is recorded absent; twice there is no record. Respiratory symptoms: first stage, irregular or Cheyne-Stokes, four times, rapid twice, slow once. Second stage, Cheyne-Stokes twice, rapid six times.

Remissions of a decided character were noted twice; after the development of the most grave symptoms, a period of improvement led to hopes of recovery.

Duration.—Of premonitory symptoms, unknown twice; prolonged, once; one year, once (tumor); in two cases, about four weeks; in two, ten days; in one each, three days and twenty-four hours; in two they were absent, and in two the first stage developed at once.

First stage: Twelve hours, two; four days, two; five days, two; ten days, two; eleven days, one; thirteen days, one; unknown, three.

Second stage: Twenty-four hours, one; seven days, one; five days, three; forty-eight hours, one; six days, one; eight days, one; four days, two; nine days, one; unknown, two.

Entire duration: Thirty-six hours, one; four days, one; seven days, one; twelve days, two; fifteen days, two; eight days, one; fourteen days, one; eleven days, one; unknown, three.

The difficulty of estimating the duration is evident to any one. It can only be said that a short first stage, in all the instances, determined a second stage.

A postmortem examination was held on four of the cases. In two the disease was largely localized, once in the cerebellar region, in another over the right frontal convolutions, the presence of the tubercle causing, during life, the symptoms due to localized cerebral irritation at these points.

The autopsy also revealed, in the cases of aphasia, etc., a well-known rule, that the amount of gross lesion is not to be inferred from the extent of symptoms.

Summary.—Tubercular meningitis may be considered a disease (1) of frequent occurrence, in the middle and lower classes especially; (2) more common than other localizations of tuberculosis, except the pulmonary; (3) and much more frequent than other varieties of meningitis.

Among the *causes* most prominent are age, hereditary predisposition to tuberculosis, poor hygienic surroundings, and insufficient and poor food. *The prime factor, always to be looked for, is the presence of a primary focus, inflammatory, tubercular, or "cheesy."* The important symptoms presented in this series of cases were, in addition to the usually noted ones, in the premonitory stages, emanciation, irregular fever, and gastro-intestinal disorder without vomiting; in the succeeding stages, purulent conjunctivitis, erythemas, and other vascular changes in the skin, excessive emaciation, fever, offensiveness of breath, the scaphoid abdomen, and changes in respiratory rhythm.

THERAPEUTIC PROGRESS.

Resorcin for Erysipelas.—The local application of a two per cent. solution of resorcin is beneficial in facial erysipelas.

Belladonna is thought to be a physiological antidote to jaborandi. Belladonna prevents diaphoresis while jaborandi increases the flow of saliva.

Valerian in Diabetes Insipidus.—Demange says, that diabetes insipidus is best treated by valerian in doses of two to four drachms of the powder per diem. This drug was highly praised by Trosseau, and has been revived since by Bouchard.

THE EXTRACT OF BELLADONNA.—According to Mr. Wyndham Dunstan, the alcoholic extracts of belladonna root range in alkaloidal strength from one and sixty-five hundredths to four and forty-five hundredths. This is due mainly to the different ways in which the extract is obtained.

A NEW GALACTAGOGUE.—At a recent Medical College in Naples, Professor Siurleo called attention to the ditana digitifolia, a Mexican plant, as possessing remarkable galactagogue properties. The flowers, and especially the stamens, are, in addition, credited with sudorific properties.

ETHYLATE OF SODIUM, a new caustic agent, has been used in London in removing nævi. It is applied by means of a camel's-hair brush. It is used to cauterize chancroids and chancres or to remove warts. Apply with a pencil of camel's hair, being careful to anæsthetize the parts with cocaine or ether.

VERATRUM IN TYPHOID FEVER.—Dr. M. M. Hamlin has good effects from veratrum in typhoid fever with a high temperature, a dry skin, sordes on teeth, and a dry parched tongue, with pulse frequent and feeble. He begins its use as soon as the temperature reaches 103°, giving it in doses to hold the temperature at that point.

A REMEDY FOR CORYZA.—Rabon has repeatedly seen benefit from the following powders used like ordinary tobacco snuff, which also they resemble in appearance: (1) Menthol, two parts; roasted coffee, fifty parts; white sugar, fifly parts: Mix and take as snuff. (2) Cocaine hydrochlorate, one part; roasted coffee and white sugar, of each, fifty parts: Mix and use as snuff.

AN OINTMENT FOR BRUISES.—Dr. S. M. French, of Philadelphia, writes that he has found the following ointment to act like magic in controling the pain and inflammation dependent upon severe bruises. Its anæsthetic properties are truly wonderful:

℞. Ext. belladonnæ,
Glycerini.................................... āā.

PEROXIDE OF HYDROGEN IN EPILEPSY.—Dr. B. W. Richardson speaks of the benefit he has derived in many cases from the use of peroxide of hydrogen in epilepsy, and states his conviction that the drug demands a more extended trial than it has hitherto had. The dose is a drachm of the ten-volume solution given thrice a day in half a tumbler of water, gradually increasing the quantity to two or three drachms. A drachm of glycerine added to each dose reduces the metallic taste.

CANNABIN TANNATE.—This glucoside combined with tannic acid was introduced by E. Merck. Attempts have been made to place upon the market a so-called "cannabin," which the *Pharmaceutical Record* states is nothing more than a purified extract of cannabis indica. Cannabin tannate acts as a mild and pleasant hypnotic, and is especially used in cases where morphine is objectionable. It has been claimed to have produced a gentle sleep when opium had failed completely. The dose varies from two-tenths to one gram.

EXTERNAL USE OF LOBELIA INFLATA.—Dr. V. N. Reichard recommends the use of lobelia inflata as a local application for indolent sores, chronic erysipelas and especially in incised wounds, in which latter class it acts as a hæmostatic and astringent. The mode of employment of lobelia for this purpose in cases of incised wounds, no matter how great the hæmorrhage, provided, however, it does not require a ligature, is to bring the edges of the wound together and to hold them in place a few moments while a pledget of cotton wet with tincture of lobelia is applied.

BINIODIDE OF MERCURY.—The great drawback in the employment of the biniodide of mercury as an external application consists in its insolubility. M. Mehn, member of the Academy of Medicine in the pharmaceutical section, has overcome this difficulty by recommending the salt to be rubbed up with castor-oil, which completely dissolves it. A solution of one part of the salt to fifty parts of castor-oil does not become cloudy. This solution is sufficient to satisfy the exigencies of therapeutics. The addition of iodide of potassium increases the solubility of the biniodide of mercury in castor-oil.

PILLS FOR HABITUAL CONSTIPATION.—Duchenne credits the following formula to Huchard:

℞. Resin of podophyllum,
Soap,
Extract of hyoscyamus, āā............. gr. ivss.
Divide into ten pills.

To increase their efficiency a grain and a half of extract of rhubarb may be added to each pill, or the same quantity of euonymin; or, if the constipation depends on intestinal atony, from one-eighth to one-fifteenth of a grain of extract of nux vomica.

THE INCOMPATIBILITY OF CALOMEL AND BROMIDE OF POTASSIUM.—Vigier remarks that calomel is decomposed on the addition of potassium bromide, although more slowly than when the iodide is added. Nobody, he thinks, would give the two drugs within five or six hours of each other, but it might happen, for example, in a case of infantile convulsions, that, two practitioners being called in quick succession, the second one might order one of these drugs after the other had been given by the advice of the first one. He gives the caution, therefore, that in such cases their incompatibility should be borne in mind.

HYPODERMIC SOLUTION OF QUININE.—When it is necessary to administer quinine subcutaneously, the following formula is recommended by Dr. S. S. Burt, as being as little irritating as possible.

℞.	Bisulphate quinine	ʒj.
	Boracic acid	gr. ij.
	Sulphate morphia	gr. ¼.
	Distilled water	℥j.

Sig. For hypodermic use.

One drachm of the mixture contains seven and a half grains of quinine.

CANNABINON.—A preparation of cannabis indica bearing the above name, has been brought before the profession. It possesses a strong aromatic odor and a bitter, somewhat acrid taste. According to the most recent investigations made by eminent physicians and physiologists it has been found that, in doses of five-one-hundredths to one-tenth of a gram, it produces a quieting and refreshing sleep without the appearance of any disagreeable after effects in the following morning. The pure article is in the form of a soft resinous extract and is not well adapted for dispensing. Merck prepares a ten per cent. trituration. The average dose of the trituration is considered seven-tenths of a gramme.

SAL ALEMBROTH: SIR JOSEPH LISTER'S LATEST ANTISEPTIC.—For the last fifteen months Lister has discarded the use of the spray, using it only in operations involving the peritoneum. Carbolic acid and the perchloride of mercury have been superseded by Sal Alembroth, which is used exclusively in his wards for dressings, and it has so far given very fine results. This is a double mercurial salt formed by the sublimation of a mixture of perchloride of mercury and chloride of ammonium. This salt was known to the alchemists. It is exceedingly soluble; it has not been used in medicine in modern times. Lister prepares all his dressings now with a one to one hundred solution of this,—gauze, cotton wool, lint, etc.,—and when the wound is covered by the shirt it is rendered septic by dipping it in the solution and drying it before the fire.

ANTIPYRIN AS A HÆMOSTATIC.—E. Casate reports the successful application of antipyrin in four and five per cent. solutions, as a hæmostatic. The results attained by its use seem to warrant the following conclusions: (1) Antipyrin is a powerful hæmostatic. (2) It is superior to perchloride of iron because after its use the wound remains entirely clean. (3) It is superior to ergot because only in extremely large doses does it manifest a toxic action, while according to Huchard it exerts a hæmostatic whether applied directly to the bleeding part or administered internally. (4) In many cases it is to be preferred on account of its antipyretic as also perhaps for its antiseptic effect. (5) The hæmostatic action is manifested in a very short time. (6) Further observation is necessary to determine its value in controlling secondary hæmorrhage.

LANOLIN AN OLD REMEDY.—It appears that lanolin is not entitled to take rank among the most recent additions to the materia medica, insomuch as Culpepper, the venerable "student in physic," described it in his work published in 1650. This has been lately pointed out by a correspondent in the *Chemist and Druggist*, who gives the following extract: "*The Way to Make Œsipus.*—Take wool cut off from the neck, ribs, and under the pits of the forelegs of a sheep not washed, but well wearied, wash it well in warm water so long till it have left all its fatness in the water, then press it out and lay it by; let that fat and foul water be poured from on high out of one vessel into another a long time till it be froathy, then let the froath settle and take off the fat that swims at the top, then pour the water to and fro again, till neither more fat nor froath appears, then wash the froath with the fat in clear water till it be cleansed from the dross and will not bite your tongue if you touch it with it; then keep in thick earthen clean pot in a cold place."—*Canadian Pharmaceutical Journal.*

A VALUABLE REMEDY FOR DIARRHŒA AND DYSENTERY.—The intestinal catarrhs so prevalent during the summer months make up a large proportion of the practice of every physician. While the treatment of this class of affections must necessarily be modified to suit the stage of the inflammation and the idiosyncrasies of the individual case, there are, nevertheless, certain symptoms, common to all cases which may generally be relieved by a remedy which has been extensively used in Europe and in this country with the most gratifying success. We allude to chlor-anodyne manufactured by Parke, Davis & Company. Chlor-anodyne is an improvement upon the proprietary preparation which under the name of chlorodyne was introduced into England by Dr. J. Collis Browne, and was widely used and commended by physicians of the highest standing. Chlor-anodyne is a happy combination of anodynes, anti-spasmodics and carminatives. It is a diaphoretic, anodyne and astringent in its action, and intelligently administered has almost a specific action in diarrhœa and dysentery. Each gram (an ordinary adult dose) contains:

Morphia muriate	.0060 grams.
Tincture cannabis indica	.0800 grams.
Chloroform	.1350 grams.
Oil of peppermint	.0025 grams.
Tincture capsicum	.0025 grams.
Hydrocyanic acid	.0170 grams.
Alcohol	.3000 grams.
Glycerine	.4570 grams.

Those desiring literature more fully descriptive of chlor-anodyne should send to Parke, Davis & Company for their interesting working bulletin relating to this preparation.

SPECIAL NOTICES.

I TESTED acid mannate in a case of malarial fever, where mercury and quinine were contra-indicated, and it acted promptly and efficiently.—A. J. Underwood, M. D., Heber, Arkansas.

UTERINE TONIC.—With pleasure I recommend aletris cordial (Rio Chemical Company) as an excellent uterine tonic and restorative. I have used it in several cases with great success. Will prescribe it in future in all such cases.—G. J. Randall, M. D., Nashville, Tennessee.

DR. LIVEZEY writes: While wintering in Florida, I met with my annual patient, a young lady of twenty-eight, from Chicago, who was sent thither three or four years ago in order to pass out into the "spirit land" comfortably, who now being troubled with poor appetite, a slight but distressing nausea, great debility, irregular menstruation, excessive cardiac action on the least exertion, etc. I ordered one ounce bottle of lactopeptine of the New York Pharmacal Association's manufacture and she improved at once. Soon after she met a lady friend, who told her she ought to take lactopeptine, stating what wonders it had done her, who was troubled "just the same way" (of course). "Why, bless me," said my patient, "that is just what my doctor prescribed for me and I am doing nicely." By the time she finished the small vial she declared she never felt better in her life, her appetite being regular and everything O. K. N. B.—She has taken since lactopeptine, elixir, calisaya, iron and bismuth, with excellent results.—*Medical Summary.*

J. LINDSAY PORTEOUS, M. D., F. R. C. S., M. R. C. P. (Edinburgh), in the April number of the *Edinburgh Medical Journal*, says: Of late there has been a very great influx of new drugs, some of great value, others of little or no use. Where a medical man has an extensive practice, consisting of rural and urban patients, he has ample opportunity of testing the effects of drugs, as the varieties of disease that come under his notice are great; and although his means of watching the actions of drugs are not so good as in hospital practice, yet a good deal can be done if he cares to take a little trouble to "take notes." The following is one that has been used for some time by my colleague (Dr. Proudfoot) and myself, and I give the results:

Bromidia.—About eighteen months ago a friend of mine from America told me of the wonderful effects of a medicine, much used in the States, called bromidia. According to the makers, it is composed of chloral hydrate, fifteen grains; potassium bromide, fifteen grains; extract of cannabis indica, one-eighth grain; and extract of hyoscyamus, one-eighth grain. I obtained some, and have ordered it regularly for over a year, and have found it excellent in the pain of rheumatism, pneumonia, and cancer; also in the sleeplessness of scarlatina and alcoholism. It has never failed me in procuring sleep, without the disagreeable dreams and after-effects of opium. The dose is one-half drachm to one ounce every hour till sleep is procured. I have also found it of much service in cases of tonsillitis, used as a gargle with glycerine and carbolic acid.

THREE CASES OF INANITION.—I have recently had an interesting experience with three cases of inanition in infants, and as weak stomachs in babies are so often the subject of the medical man's attention, have concluded to give my experience to the profession.

Case I.—C. S., male, aged ten weeks. Was present at the birth of this child, and at birth it was a strong, hearty child: but the mother having no milk, she commenced rearing the child on cow's milk. For a time the child thrived, but the extreme hot weather of last summer was too great a tax upon its digestive powers. At the age of teen weeks I was called to see it. The mother told me that it had had a similar attack to the one I am about to describe, three or four days previously, but had partially recovered from it. Upon visiting the little patient, I found it constantly crying. It presented a shrivelled, pinched, mummified appearance, such as one never forgets after having seen it once. I sat and studied this child carefully, and concluded that the child was not crying from pain, but from hunger, and that the entire trouble was inanition from lack of assimilation. I told the mother I did not think the child would live till I could get to town, a distance of five miles, and get some food out to it. I left a placebo to appease the anxious mother, and returned to the city. I had in my office a sample package of Carnrick's soluble food, which had been sent me a short time previously; I also had samples from several other manufacturers, but chose Carnrick's, not because

I had any more confidence in it, but because it could be prepared without using any milk. The father took it home, and some of it was quickly prepared and given. From the first dose, the child ceased crying, and commenced thriving at once, very much to my surprise and that of all who saw it.

Cases II and III.—These may be considered as one case, being a pair of twins, born at the seventh month; I will designate them as babies numbers one and two. When these children were born I did not expect them to live, as they were very puny and feeble. When they were six weeks old I was called to visit them, and I found them in precisely the condition of the one previously described, except that there was not the continual crying. One of them, which I will designate as number one, seemed much weaker than the other, in fact, it lay in a condition of stupor most of the time. I had a small portion of the sample package of soluble food left, and ordered them to be fed with it at once. They commenced recovering at once, and continued to thrive as long as the food lasted. In the meantime I had ordered the food from both Saint Paul and Milwaukee, but could not obtain it in either city. When the food I had left them was gone, and as no more of it was to be obtained, they were placed upon the use of another food, which is in very popular use for infants, but it failed to meet the requirements, and, though the greatest of care was used in its preparation, it was but two or three days before they commenced showing signs of inanition; but this time the one designated as number two failed first, dying about a week after we suspended the use of Carnrick's soluble food. The other died four days later. In the case of these two infants the changes for better and for worse were so decidedly marked that there could be no question as to the effects of the foods, and the parents, as well as myself, are convinced that could we have had the soluble food to continue with both children would be alive to-day. About a month ago, C. S., case number one, commenced showing all of the evidences of a return of the old condition of inanition, though what caused it I could not learn. Not having yet obtained a supply of Carnrick's food, I prescribed the food that was substituted for it in the case of the other infants, but the child still failed. In the meantime I had written a brother of mine in Chicago, who succeeded in obtaining some of Carnrick's food of Fuller & Fuller. As soon as it arrived the child was fed with it, and the patient is now (two weeks later) nearly restored to its former plump, healthy condition.

If my fellow practitioners will try this preparation, I can assure them that they will not only be pleased with it, but will save the life of many a little patient that would otherwise be sacrificed.—T. L. Hatch, M. D., of Owatonna, Minnesota, in *Northwestern Lancet*, Saint Paul, May 15, 1886.

THE
PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. AUGUST, 1886. NUMBER VIII.

ORIGINAL ARTICLES.

A CASE OF VESICO-VAGINAL FISTULA, WITH EXTENSIVE LACERATION OF CERVIX: OPERATION SUCCESSFUL.

BY T. SHAW, M. D., CHELSEA, MICHIGAN.

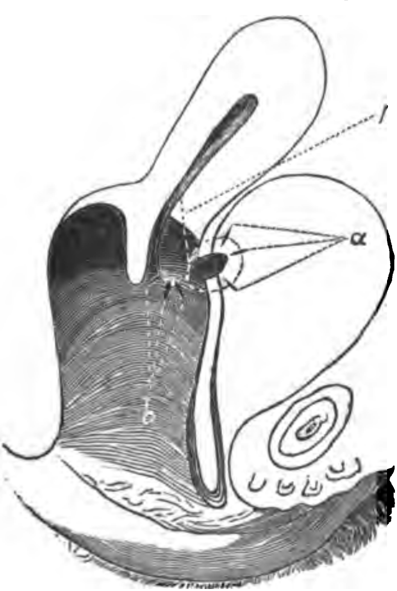
I am aware that the treatment of "genital fistulæ" is a subject that is well before the profession by way of reported cases and special treatise. Yet all has not been said; and I take it upon myself to add a brief description of a case.

Mrs. C. B., aged thirty-four years, medium height, weight two hundred pounds, confined at term December, 1884. This was the termination of her second conception, both children being still-born and hydrocephalic. The breech presented, the head last. This circumstance, connected with the fleshy condition of the patient, made the diagnosis of hydrocephelas obscure. Some force was used in extraction, and this, in connection with an exceedingly large head, resulted in an immediate laceration, embracing the entire cervix and extending well into the body of the uterus, and laterally through the utero-vagino-vesical tissues, making an extensive and fearful laceration.

Recovery from confinement was rapid and without incident, except the annoyance from the constant discharge of urine. Circumstances were such that I had the privilege of but few examinations, and therefore was unable to watch the natural process of repair. The patient and friends were informed of the consequence and an operation advised, but to avoid detail will say that seventeen months elapsed before patient and physician were prepared to execute it.

On the 5th day of June, 1886, everything being in readiness, I proceeded to operate. The conditions to be overcome were a rent in the right antero-lateral aspect of the uterus extending from the os to two or three lines above the utero-vaginal junction and reaching from this point obliquely upward and inward to the uterine cavity, and also a fistulous opening so large as to admit the tip of my index finger in the vesico-vaginal septum, situated at the upper part of the vagina immediately facing the uterine rent.

The patient was prepared for the operation by clearing the bowels with castor-oil, and after its effect, and two hours previous to operating a full anodyne dose of morphine, and when placed on the table an alcoholic stimulant was given. I now proceeded to denude the margin of the fistula: when this was completed, I found the freshened surface extended on the uterine side to the wound in that organ, so that by closing the fistula in the ordinary manner, urine might escape—back of the sutures—into the uterine cavity and thus establish a fistula. To overcome this difficulty and at the same time assure perfect union at the upper part of the uterine rent, it became necessary to encircle this part with a firm and perfect suture. The wound in the uterus was freshened and I proceeded to insert the above stitch, which was accomplished by the use of a needle of a rounded form, slightly curved, the eye near the point, and about one and a half inches in length. This needle—in the firm grasp of a needle holder—was inserted at a proper distance from the freshened surface, and midway between the fistula and the uterus its point directed toward that organ, was now forced into the uterine tissue to emerge in the cavity slightly above the termination of the rent. The point being made visible in the uterus by the use of a double tenaculum, it was now armed with silver wire and withdrawn. This operation repeated on the opposite side and the suture was in place.



(1) Course of uterine suture.
(a) Sutures to close fistula.
(b) Sutures to close cervix.

Slight traction on this suture gave to the fistula a linear aspect with the cervical wound. Three stitches in the fistula and three in the cervix were sufficient to close them. The stitches were secured by carefully twisting and cutting them at a safe distance from the wound. The operation completed the patient was placed in bed and a Skene-Goodman catheter introduced. This failed to do its work. Several devices were tried with varying results until the third day, when quite an accumulation of urine took place. All hard instruments caused pain and tenesmus. I now resorted to a piece of rubber tubing a yard in length; the vesical end cut taping from two sides, and several small holes snipped near to ensure drainage. A piece of bone from the end of a gum catheter was slipped on about four inches from this end to indicate how much of the tube was inserted. At the distal end was attached a piece of glass tubing to give it weight so that it would remain in the receptacle, for which I used a bottle with its mouth elevated and placed in bed at the patient's side. This arrangement worked admirably, remaining three days at a time without removal, and the patient was enabled to watch proceedings herself and change position in bed without disarranging it.

There was nothing given after the first day to confine the bowels; they moved on the seventh day of their own action. The sutures were removed on the tenth day, union appearing to be good and the catheter was dispensed with. From this time the patient began to sit up and returned to her home on the fifteenth day well.

A CASE OF AMPUTATION AT THE HIP–JOINT UNDER STRICT ANTISEPTIC PRECAUTIONS: RECOVERY WITHOUT THE SLIGHTEST SUPPURATION.

BY THOMAS P. SATTERWHITE, M. D., LOUISVILLE, KENTUCKY.
Surgeon to the Louisville City Hospital.

Lula Evans, white, aged twenty-seven years, married, was admitted to the Louisville City Hospital January 19, 1884. She had almost uniformly good health until three or four months prior to the accident, which resulted in such serious consequences. Six years ago she was married and lived with her husband two or three years. She states that he had syphilis before their marriage, but she had seen no constitutional manifestations. Although conception took place, she never reached full term, but aborted twice, at the third and fourth months respectively. Three years ago, while carrying a bucket of water across the room, her left lower extremity suddenly gave way, without her having sustained any injury whatever. On examination the left femur was found to be fractured near the junction of the upper and middle third. This spontaneous fracture had been preceded by pain in the limb, but not enough to disturb her sleep and general health. Immediately after the fracture had occurred she was taken to the Louisville City Hospital for treatment. In the course of a few months bony union had taken place; but the callous poured out at the seat of lesion did not diminish, on the contrary it increased, and soon a marked osseous enlargement involved almost the whole length of the femur, from the condyles to near the trochanter major. During the growth of this new formation, she began to suffer a great deal from pain which continued almost constantly.

She came under my care in June, 1885, when her suffering had become very severe. After consultation with Dr. J. M. Holloway, it was determined to trephine the bone. This was done and a button one-half inch in diameter was removed. The trephine penetrated into the medullary canal. The portion of bone removed appeared healthy, but the microscopist of the hospital, Dr. J. B. Marvin, reported that it was the seat of osteosarcoma. Marked relief from pain immediately followed the operation. Although she had acquired the morphine habit, I was quickly enabled to withdraw the opiate entirely. During the ensuing two months, she had enjoyed perfect freedom from pain, but her suffering gradually returned with the increased growth of the neoplasm. It became necessary to resume the morphine which after a while was taken at the rate of three grains in the twenty-four hours.

In May, 1886, a consultation was held with the view of considering the advisability of amputation at the hip-joint. Professor Donald Maclean, of Detroit, Michigan, being on a visit to our city, kindly accepted my invitation to join in it with Drs. Holloway, Cartledge, Morton and Leber, and all agreed with me on the following points:

(1) That amputation at the hip-joint was the only procedure that afforded any prospect of relief.

(2) That it was a favorable case for the operation.

(3) That the patient was at that time in as good condition as she could ever be in.

(4) That the operation ought to be performed without any unnecessary delay.

As the patient herself was not only willing, but desirous to have the operation performed, I decided upon operating at the earliest practical moment.

On May 27, 1886, at 3 o'clock P. M., the patient was examined, and her condition found to be as follows: She had lost much flesh, yet her nutrition was comparatively good; appetite rather feeble. Her heart and lungs were in good condition. No evidence was elicited of renal disease. Locomotion was painful in the extreme, and possible only by the aid of a crutch. The affected thigh was one-fifth larger in circumference than its fellow. The bone felt twice as large as the other, it presented a hard irregular enlargement, which extended from within two inches of the condyles to immediately below the trochanter major. After the administration of one ounce of whisky and a hypodermic injection of one-half grain of morphine, the patient was anæsthetized with chloroform by Dr. T. F. Berry. At the suggestion of Professor Maclean, an instrument described by him had been made by Tafel Brothers, of this city, and was adjusted upon the patient in order to control hæmorrhage by compressing the abdominal aorta. This was skillfully and successfully manipulated during the operation by my friend, Dr. Geo. W. Griffiths. Esmarch's bandage was applied to the whole limb before the turniquet was adjusted, and as soon as anæsthesia had become sufficiently profound, and pulsation had ceased in the femoral artery, the operation was commenced by making the antero-posterior flaps. Disarticulation was readily accomplished. The hæmorrhage was perfectly controlled, so that not more than two ounces of blood was lost. Catgut ligatures were used for tying the vessels and were cut short. After all oozing had ceased, horse-hair drainage was established and the flaps were brought together with silk ligatures previously soaked in bichloride solution. The deep sutures were an inch apart and the superficial ones were introduced between them. In order to protect the patient as thoroughly as possible from all septic influences, she was placed in a tent in the hospital grounds early in the morning of the day that she was to be operated upon. The tent had previously been cleansed by prolonged immersion in boiling water. A new iron bedstead with entirely new sheets and bedding had been placed in the tent, and were disinfected with the bichloride solution (one to two thousand) before the patient was moved into it. The nurse's bed was of the same description, and the same precautions were taken with it. New buckets were provided, and after having been scalded out with boiling water, a solution of bichloride (one to one thousand) was continuously kept in them. Sponges and bandages and towels had all been immersed in this solution before employed by me. All instruments and all the animal ligatures used were kept immersed in a solution of carbolic acid (one to thirty). Every one engaged about the patient during the operation had taken special care to rid himself of septic germs, by ablution and the use of bichloride solution upon the hands (one to one thousand). The patient herself was thorougly cleansed by thorough ablution with warm water and soap, after which the lower part of her body was washed with the bichloride solution (one to one thousand). The vagina was tamponed with absorbent cotton, and the hairs upon the labia and mons veneris were cut quite short. During the whole operation a stream of water containing bichloride (one to two thousand) was made to play upon the cut surface. When the edges of the wound had been brought together, a small stream of this bichloride solution was projected into the interior in the course of the drainage tube. The excess expelled by gently pressing the flaps. Iodoform was liberally applied all along the closed wound by means of an insufflator. The stump was then enveloped in absorbent cotton, saturated in bichloride solution (one to two thousand). Dry absorbent cotton was then placed over this, and the whole kept in place by means of antiseptic bandages carefully applied. Immediately after the operation had been completed the patient was removed to her bed and a small pillow adjusted under the flaps. She rallied quickly and satisfactorily from the anæsthetic. There was some shock, temperature in the axilla being 97° Fahrenheit, pulse 120 though a fair volume, respiration 25. One grain of morphine was immediately administered hypodermically, and as soon as she could swallow, she received one ounce of whisky. By 10 o'clock her temperature had fallen to 96 4-5°, respiration was 26, and the pulse remained 120 but was a better volume, and the patient felt better. At midnight another hypodermic injection of one grain of morphine was given. Whiskey continued to be given in doses of one ounce every two hours. Quinine, five grains every six hours, was also given.

May 28, 9 o'clock, A. M.: Temperature, 98 4-5°; respiration, 18; pulse, 120, of good volume. Up to this time she had received eight ounces of whisky and about three grains of morphine. Her stomach now began to reject everything. The whisky was withheld and Werner's extra dry champagne was given instead in small quantities, and repeated at short intervals. Valentine's meat juice and milk were administered every two hours. 12 o'clock M.: Temperature, 98½°; respiration, 16; pulse, 120. Vomiting had ceased. 7 o'clock P. M.: Temperature, 98½°; respiration, 17; pulse, 132. Hypodermic injections continued as before the operation.

May 29, 9 o'clock, A. M.: Temperature, 98½°; respiration, 16; pulse, 112. 7 o'clock, P M.: Temperature, 99°; respiration, 18; pulse, 130.

May 30, 9 o'clock, A. M.: Temperature, 98½°; respiration, 24; pulse, 112. She had a slight sweat during the night. Tongue heavily coated. 7 o'clock, P. M.: Temperature, 99°; respiration, 20; pulse 118. Champagne was discontinued.

May 31, 9 o'clock, A. M.: Temperature, 99½°; respiration, 24; pulse, 120. She had three loose evacuations during the night. Treatment continued as before, save that the tannate of quinine was substituted for the sulphate. 7 o'clock, P. M.: Temperature, 99°; respiration, 18; pulse, 120. Diarrhœa had continued during the day, three evacuations. She now mentioned that her mouth felt sore, and had been for two days. On examination she was found to be slightly salivated. Chlorate of potassium in small doses given every hour.

June 1, 9 o'clock, A. M.: Temperature, 99°; respiration, 18; pulse, 120. 7 o'clock, P. M.: Temperature, 99°; respiration, 18; pulse, 120. Diarrhœa somewhat controlled.

June 2, 9 o'clock, A. M.: Temperature, 99°; respiration, 18; pulse, 110. 7 o'clock, P. M.: Temperature, 98½°; pulse, 130. Bowels quiet.

June 3, 9 o'clock, A. M.: Temperature, 98½°; pulse, 110. For some days the dressings have been wet with synovial fluid, and sanious discharge. During the night there was some hæmorrhage, and the resident surgeon (Dr. Jenkins) was summoned and remained with the patient till morning, but there was no further loss of blood. The dressings were removed and the wound was found perfectly free from any odor. One-half the length of the horse-hair drainage was withdrawn, upon which followed a flow of some venous blood, perfectly odorless. The stitches were found perfectly dry, and the point of insertion free from all irritation or discharge. Union has taken place. The bichloride solution was discontinued and a dressing of iodoform and carbolic acid (one part to forty parts of water) were used in place thereof. The hæmorrhage was due to a sudden movement made by the patient, while in a troubled dream. It was not excessive.

June 4, 9 o'clock, A. M.: Temperature, 99°; pulse, 114. 7 o'clock, P. M.: Temperature, 99°; pulse, 116.

June 5 and 6: Temperature and pulse as on the 4th.

June 7: No change in temperature. As she had some uncomfortable sensations about the stump the dressings were removed. There was not the slightest evidence of discharge or irritation, the sutures were perfectly free from moisture, and were now removed, and adhesive strips were substituted. Union perfect, save where the drainage offered a mechanical obstacle; it was now withdrawn, and with it came away about two ounces of odorless venous looking blood, the presence of which, doubtless had been the cause of the discomfort she complained of. Owing to it and the continued oozing of synovial fluid, a short rubber tube was inserted, its extremity projecting beyond the edge of the wound was enveloped in absorbent cotton, saturated in bichloride solution (one to one thousand) and covered with iodoform and absorbent cotton. This dressing was changed whenever necessary. In thirty-six hours there was hardly any discharge from the tube, and at no time did it exceed a teaspoonful of the same odorless sanious fluid already mentioned. The patient felt so well that she constantly tried to rise from the bed or change her position which may have augmented the discharge.

June 8: Temperature, 98½°; pulse, 100. Stomatitis almost cured and the patient declared that she felt better than she had felt for several years.

June 11: With increasing strength and consequent frequent changes of position the dressing soon became loose, and had to be changed at shorter intervals. They were still applied as last described (June 7). The discharge from the tube had so nearly ceased that it was removed. No fluid escaped on its withdrawal, and when examined a long piece of fibrin was found in it. Union of the flaps was soon so complete that even the sinus of the drainage tube had closed, and without a drop of pus having been seen throughout the whole healing process. On June 21, the patient was sitting up, and Dr. Jenkins reported that in four weeks she was able to walk about with the aid of crutches.

Dr. Edward Von Donhoff, who kindly made a careful examination of the amputated limb, immediately after the operation, furnished the following report of its condition.

The femur having been denuded of the soft parts, and the bone divided by a longitudinal section, the following appearances were observed: At the juncture of the upper and middle third was a cicatrix of an ancient fracture; it involved the entire thickness of the shaft. Above and below this the medullary canal was much enlarged, and the cortex much attenuated. The medullary structure was dark red in appearance and thickly charged with gritty debris. At both ends the cancellated part of the bone was much softened and covered by cartilage in the initial stage of fibrous degeneration. The periosteum was readily detached from any part of the bone, and was thickened and soggy.

In conclusion I would express my appreciation of the kind and efficient aid afforded me by Drs. Holloway, Cartledge, Griffiths, Leber, Berry, and Jenkins.

CLINICAL LECTURES.

AN ABSTRACT OF REMARKS ON A CASE OF CONGENITAL RENULA: WITH OPERATION.

BY DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.

I have not had an opportunity to make an examination of this patient in the ward, and will get the history from the mother, and will then in your presence make the examination.

The mother states that the child is two years old. When he was born the attending physician noticed a tumor under his tongue, on the left side, which on being squeezed exuded some blood. The growth, she says, increased in size as the child grew older, and soon involved both sides of the under surface of the tongue. It has continued to enlarge and you now see to what size it has grown. The child can close its mouth with difficulty, but it is usually open, and this large mass protrudes. At first sight, from the bilateral symmetry of the tumor, it appears as if the whole anterior portion of the tongue was greatly hypertrophied. Upon close examination the true character of the tumor is easily diagnosed. The swelling involves the whole under surface of the tongue, from the tip back to where the mucous membrane is reflected on to the floor of the mouth. The free surface of this growth has not the characteristics of the under surface of the tongue. There is an absence of the median furrow in front and of the fold or frænum behind. The surface is smooth and even, and has an inflated look. When viewed from the side with a strong light it is translucent; and with a finger on each side, or with one on the tumor and the other under the chin, it is found to be tense and elastic, giving distinct fluctuation.

The gradual growth and the large size of the tumor have by pressure greatly changed the aspect of the lower portion of the child's face. The lower jaw is expanded in all directions. It is fully an inch wider and projects a half-inch beyond the upper jaw. The lower lip is protruded and the prominence of the jaw increased by the almost horizontal position of the lower front teeth. The teeth are also widely separated from each other, and from their pegged appearance show that their development has been impaired. There is no evidence of any inflammation, but the tumor has of late become painful on pressure.

This is a rare variety of a somewhat common form of cyst known as renula. While these cysts under the tongue are frequent in men, women and children, we do not have them often to treat at this clinic. Renula is a name given to all cysts formed under the tongue containing a semi-clear fluid. Their diagnosis is usually simple. They are distinguished from sublingual nævi by their translucent appearance, by the presence of fluctuation, and by their failure to reduce in size by long firm pressure. Dermoid cysts may be mistaken for renula on account of the latter being the more common, but they are not translucent and do not fluctuate. The nature and origin of renula are not exactly understood. It was thought that they always were formed by the dilatation of Wharton's duct or of a duct from the sublingual gland. Doubtless some of them are thus formed, but it is just as certain that some have an entirely different source, which is shown from the orifices of the ducts being open, and that a probe in some cases can be passed in the duct alongside of and beyond the cyst. The most recent theory that is offered for the formation of renula is, that they are produced by the dilation of the ducts of the mucous glands beneath the tongue, but clinical observations teach that it is a condition due to more than one cause, and having more than one seat of origin.

It would be a very simple procedure to relieve the present condition of this patient. A slight puncture would allow the contents of this cyst to escape and the tumor would immediately disappear, but it would certainly refill, and that in a short time. In order to effect a permanent result, we must remove the conditions that render its refilling possible. The sac must be obliterated by destroying its walls and changing its secreting surface. We will attempt to accomplish this result by removing a piece of the cyst wall, and to the secreting surface make an application of the strong tincture of iodine.

Operation.—Child anæsthetized with chloroform. The cyst was empted by means of a small trochar and canula. The relaxed wall of the cyst was then lifted up and a piece was clipped away with the scissors. Quite free hæmorrhage occurred which was stopped by securing the bleeding points with ligature. The exposed inner surface of the cyst now received a thorough application of the strong tincture of iodine, and the wound closed with horse-hair sutures. The next day there was considerable inflammation; the parts were swollen and the tongue protruded. The mouth was washed with the compound tincture of lavender in water, in the proportion of one drachm of the tincture to a cup of water, to correct the bad odor. The swelling rapidly subsided and in a few days the patient was discharged as cured.

ORIGINAL TRANSLATIONS.

GERMAN LITERATURE.

TRANSLATED BY WILMOT F. MILLER, ANN ARBOR, MICHIGAN.

SIGNIFICANCE AND DIAGNOSIS OF GONORRHŒA IN WOMEN.

BY PROFESSOR LOMER.

Gonorrhœa plays a part of greater importance in gynæcology than is usually attributed to it, ranking next to the puerperium as a cause of disease; and is the origin of a large proportion of the numerous cases of pathological exudation, perimetritis, fixed displacement of the uterus, cervical catarrh, erosions and sterility.

This underestimation of its importance is due to the fact that gonorrhœa in women is often not diagnosed. Not only may the patient be unaware that she is diseased, but there may be no obvious physical changes to enable even the physician to arrive at a diagnosis. The disease may exist without any discharge or any scalding during micturition, or even any evidence of vaginitis, for in many cases the morbid condition is localized in the cervix. The author has seen many cases in which gonorrhœa, proved to be such by its contagiousness, gave rise to some of the ordinary symptoms, but was confined to the cervical canal. Examination of the cervical secretion, however, showed the characteristic gonococci of Neisser enclosed in the pus cells.

Some interesting researches by Bumm are quoted, in which the latter asserts that gonorrhœa in women most frequently affects the curvix, owing to the cylindrical epithelium of that region, offering the best pabulum to the gonococci, while the latter find it difficult to penetrate the mucous membrane lining the vagina. Professor Bumm, moreover, holds that gonorrhœal vaginitis is generally due to the cervical secretions causing irritation and inflammation of the vagina, much in the same way as in gonorrhœa in the male the glans and foreskin may become inflamed through want of cleanliness.

Lomer argues, if it be true that cervical gonorrhœa may exist without the vagina being necessarily involved, it is easy to explain why so many cases of gonorrhœa in women are not diagnosed; also, why so many apparently latent cases prove to be contagious; how Ricord came to the conclusion that any vaginal secretion might attain the virulence of true gonorrhœal discharges. Lastly, it would show that Nœggerath was to some extent right in his theory of latent gonorrhœa.

The discharges in numerous cases of purulent gonorrhœa, with a view to discover Neisser's diplococci, were examined. Their detection proved easy in men; in women, however, it was found otherwise, for so many other micro-organisms were present that the true cocci of Neisser could only be made out with great difficulty. Some observers have stated that true gonococci can be recognized by their shape and by the colonies they form, but this is questionable. Bumm met with several kinds of diplococci so much like the true gonococci, as to induce him to call them pseudogonococci. They differ from the true, first, by not occurring within pus corpuscles; secondly, by forming irregular groups and not rounded colonies like true gonococci. Dr. Lomer was not able to satisfy himself as to these differences.

The attempt to find some reaction or characteristic color, which might be used for the diagnosis of gonococci, was not successful.

The vaginal secretions of eighty-two hospital out-patients, suffering from acute and granular vaginitis, urethritis, cervical catarrh, perimetritis, etc., in whom there was ground for suspecting previous gonorrhœal contagion, were examined with view of finding gonococci; but they could only be made out in seven and a half per cent. of all the cases. He reached the conclusion that vaginal secretions are of very little value for the detection of gonococci. When, however, examination was made of suspicious cervical mucus in the same way, gonococci were found in all five cases.

From his investigations Dr. Lomer arrives at the following conclusions:

(1) Vaginal secretions are not suitable for the detection of gonococci.

(2) That gonococci should be looked for in the cervical secretions.

(3) Only such cases should be looked upon as gonorrhœal in which diplococci are found enclosed in pus cells.

(4) It is not as yet justifiable to regard such diplococci as proving the evistence of gonorrhœa, with absolute certainty, since they occur in the mild vaginitis of children and colonies of them are found in lying-in women.

In the diagnosis of gonorrhœa, clinical symptoms are of value. The virulent affections of the vulva, urethra, and vagina are of diagnostic importance, whether they be due directly to contagion or caused by the irritating cervical secretions. Purulent cervical catarrhs and erosions are also very suspicious, though gonococci have also been found in the transparent cervical discharge. Scanty menstruation is often secondary to gonorrhœa and may amount almost to amenorrhœa, and, as a last resort in diagnosing gonorrhœa in a woman, the history of the husband should be inquired into.—*Deutsche Medizinische Wochenschrift.*

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

SERVICE OF DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY T. J. SULLIVAN, M. D., ASSISTANT.

SECONDARY SYPHILIS: INITIAL LESION IN MOUTH.

M. M., Canadian, lumberman, aged twenty-six. Admitted to hospital October 20, 1885.

History.—Patient says that he has not had any connection with a woman for three years. The last woman with whom he stayed, is a common prostitute in a northern lumbering city. He knows of her now, and also knows men who have had intercourse with her both prior and since he was last with her. None of them have had any syphilitic sores. Last May while working in a lumber camp he was quite intimate for a time with a man who had sores on his lips and in his mouth; they drank from the same glass and smoked the same pipe. On May 20, he noticed that his throat was sore, and consulting a physician was given a gargle for it. This he used for two weeks, and then placed himself under the treatment of Dr. Hilliker, who writes that "he had chancres in his mouth which healed up." The patient says the doctor cauterized them. Three weeks after the first soreness was noticed in his throat, sore spots began to appear on his legs and forehead, and his hair began to come out. These symptoms, Dr. Hilliker writes, partially disappeared under treatment of iodide of potassium, fluid extract of sarsaparilla, and fluid extract of taraxacum, and, iodoform locally. He became much worse a week ago when he attempted to return to work.

Present Condition.—Some slight sores on his lips, but his body is covered with large superficial ulcers: these are most abundant on his legs below the knees. Most of these ulcers are one inch and more in diameter and covered with thick yellowish black scabs: pressure on these crusts exuded a quantity of fetid pus. There are many marks on his body where these sores healed. The ulcers involve only the superficial dermal layer and there is no areola of discoloration or evidence of inflammation around them.

October 21: Wednesday; bowels have not moved since Monday. Given a dose of saline mixture.

October 22: Shown in clinic. Diagnosis—secondary syphilis. The following treatment ordered:

℞.	Hydragyrum cum cruta.................	gr. iij.
	Sulphate of quinine.......................	gr. ij.

M. Ft. Pil one. Make one hundred such. Sig. Take one three times a day.

The crusts are to be removed and iodoform applied locally.

November 12: Marked improvement. There are no new pustules or ulcers and the old ones are disappearing.

November 24: Enlargement appears on ulna at wrist: it is painful at night. Quantity of mercury doubled.

December 7: Mucous patches on tongue. Mercury discontinued. Iodide of potassium ordered, grains fifteen, thrice daily.

December 10: Enlargement on arm continues painful. Doses of potassium increased.

January 8, 1886: Since last date improvement has been continuous and marked. The iodide of potassium has been gradually increased until he is now taking one hundred and eighty grains daily. The sores are nearly all healed. The mucous patches in the mouth remain, but have not increased. The patient has gained much in flesh and feels well.

January 12: Discharged, to continue treatment.

RODENT ULCER OF FOOT.

Mrs. C. D., American, aged thirty-seven. Admitted to hospital October 17, 1885.

History.—Twice married: second husband living; first husband died eight years ago. Nearly nine years ago, within a short time after returning from a lengthy visit, and, as she says, in less than a week after coitus with her husband, she had some swelling and inflammation in the vagina and around the vulva, accompanied with much pain in micturition. Her husband had a physician examine her and she was treated with caustics and other applications for what she thought to be an ulcerating womb. A brownish eruption appeared all over her body and she had sores on her head. Within a short time, several months, perhaps, after this, she gave birth to her second child, a girl, who was puny and poorly developed with sores on her head and arms: she died when three years old, of diphtheria. The first child showed no evidence of disease: it died from an attack of scarlet fever. She claims to have information that her first husband was treated for "bad disorder." A child nearly seven years old by her second husband is alive and well, showing no evidence of specific taint. Eight years ago, about the time of her husband's death, a small sore appeared on the middle toe of her left foot. She supposed it was a bruise or a carbuncle, and applied a salve, which caused it to open and discharge; it then soon healed. A similar spot appeared on the top of the toe near where it joins the foot; and at the same time a number of sores came on her left knee and right arm. Was treated by a doctor who gave her some patent medicine, and her arm and knee got well, but the foot did not improve. The sore spread and in time eat away all the toes on her foot. She removed several of the toes herself, the others were taken away by her brother. All the toes and several of the metatarsal bones are now gone. The skin has disappeared almost to the heel. The surface of the sore excretes a thin purulent offensive discharge. The slightest touch of the ulcerating surface causes pain, and it bleeds easily on the removal of the dressings. There are some enlarged glands in her groin; and her left wrist is somewhat enlarged and painful.

October 19: Shown in clinic. Amputation was regarded the only treatment that should receive consideration, and the advisability of that operation could not be determined until it could be seen whether the enlarged glands in the groin will disappear under proper treatment.

October 26: Case regarded favorable for operation. Limb removed three inches below the knee by circular method. The bone tissue does not appear healthy. The wound closed by six stitches.

October 27: Dressing changed at 5 P. M. Progress favorable.

November 9: All the sutures are out; the wound is healing and is healthy. Two ligatures removed.

November 16: Last ligature removed. She moves about the wards and came into amphitheatre without assistance.

The swelling near the lower end of the radius is painful and shows evidence of disease. For this iodide of potassium is ordered in five grain doses three times a day; also salicylic acid, ten grains, three times a day.

December 19: Discharged.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING JUNE.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of June (five weeks ending July 3), 1886, as follows, the diseases being arranged in the order of their greatest prevalence:

Rheumatism, neuralgia, intermittent fever, consumption of lungs, bronchitis, diarrhœa, tonsilitis, remittent fever, influenza, erysipelas, whooping-cough, inflammation of kidney, inflammation of bowels, pneumonia, cholera morbus, scarlet fever, diphtheria, dysentery, typho-malarial fever, cholera infantum, measles, inflammation of brain, puerperal fever, membranous croup, typhoid fever (enteric), cerebro-spinal meningitis, and small-pox.

For the month of June, 1886, compared with the preceding month the reports indicate that intermittent fever increased in prevalence. There was no marked increase or decrease of any other disease.

For the month of June, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature was slightly lower, the absolute and the relative humidity were about the same, the day ozone was more, and the night ozone was considerably more.

Including reports by regular observers and others diphtheria was reported present in Michigan in the month of June, 1886, at forty-seven places, scarlet fever at forty-eight places, typhoid fever at six places, measles at sixteen places, and small-pox at three places.

Reports from all sources show diphtheria reported at four places less, scarlet fever at nine places more, typhoid fever at the same number of places, measles at five places less, and small-pox at three places more in the month of June than in the preceding month, May, 1886.

HENRY B. BAKER, M. D., Secretary.

LANSING, July 8, 1886.

EDITORIAL PERISCOPE.

MICHIGAN STATE MEDICAL SOCIETY: ITS TWENTY-FIRST ANNUAL MEETING.

From the stand-point of years, the Michigan State Medical Society reached its majority at the meeting, held at Jackson, on June 9 and 10; and from the number of papers, their titles and authors, as shown on the programme, it promised to show from the stand-point of valuable work, that it had reached a corresponding state of maturity. This, however, was not fulfilled. It is not unusual to have one, or so, who are down for papers fail to appear, but when more than half, who were to read papers and nearly all who were to open the discussion, do not respond, one is lead to think that premature old age has resulted from undue energy and effort. There was no apparent reason why sixty per cent. of those who had signified their intentions and had prepared papers, should remain away, but the fact makes it evident that there was a reason.

No reflections can be made on the Committee of Arrangements. Its work was performed in a way that not only fulfilled its object but marked an advance, in that the papers were classified under the several departments of medicine, and were arranged to be read in separate sessions of the meeting. In the department of "Obstetrics and Gynæcology" the programme called for twelve papers, of which number only three were read. It would be difficult to name the reason for this great and sudden falling off in the interest and work of the society. Whatever may have been the cause, care should be taken that future meetings are not thus disappointing.

The central location and railway facilities of Jackson, were advantages which permitted a larger number of members to be present at the opening of the meeting than is usual.

The President, Dr. E. P. Christian, of Wyandotte, exemplified his proficiency as the executive officer. The opening and all the other sessions were called to order promptly at the hour appointed; and those reading papers were rapped down at the expiration of the allotted time for each paper. On motion, however, the courtesy of the society permitted the reading of all papers to be completed.

After the regular opening by the address of welcome and prayer, the morning session was occupied by the reading and the discussion of papers on "Ophthalmology." Dr. Fleming Carrow, of Bay City, read a thoroughly practical paper on "Foreign Bodies in, and Injuries to, the Eyeball." Following the discussion of this paper, Professor George E. Frothingham, chairman of the committee on ophthalmology, made his report in a masterly paper. Special permission was then given Dr. O. W. Wight, Health Officer, Detroit, to read a paper, in which he proposed a new system of laws for the regulation of State sanitation. The immediate action, of the society on this paper, which referred it, without discussion, to a committee authorized to lobby a bill through the State legislature, to bring his scheme into practical operation, was as pretty a piece of business as one desires to witness. Fortunately this action was reconsidered at a later session of the society. We think it would be well in future, to have some exchange of opinion, before the society lends its support in favor of any plan for a change in State sanitation or medical legislation.

Owing to absentees, the department plan was abandoned. The following papers were read during the other sessions of the society: "Management of Normal Labor," by Dr. N. W. Webber; "Uterine Cancer," by Dr. J. H. Carstens; "Some London Ovariotomists," by Dr. W. P. Manton; "Irritation of the Alimentary Canal," by Dr. I. E. Brown; "A Peculiar Case of Motor Paralysis," by Dr. J. S. Blanchard; "Remarks on Special Points on Operative Surgery," by Dr. W. H. DeCamp; "Case of Abscess of the Lung," by Professor V. C. Vaughan; "Inflammation," by Professor A. B. Palmer; "Some Recent Experience in Clinical Surgery," by Professor Donald Maclean; "Dupuytren's Contraction," by Professor W. J. Herdman. The President's address based upon "The Medical Art in Its Relations to Christian Civilization and to Public Intelligence," was well received. These relations were closely followed out, to the proving of numerous scriptural passages.

The report made last year by the committee on "Reorganization" was considered, but no definite result was reached. The proposed changes which have already been mentioned in THE PHYSICIAN AND SURGEON, were earnestly and at times hotly discussed. The whole question was indefinitely postponed, which clearly shows that the society is not ready for such radical changes in its organization.

The resolution offered by Dr. William Brodie was adopted: that no member be elegible to election or appointment to office, in the society, who is not present at the meeting, at which the election is held or the appointment made. On further motion by Dr. Brodie the society appropriated five hundred dollars to the fund for meeting the expense of the International Medical Congress.

This meeting of the society was not marked with the success that has been attained by some former sessions. It was marked, notwithstanding, with the same strong disposition on the part of factions to control the actions of the society. In one element this desire has taken such deep root, because for years it was allowed to flourish unopposed, that, now, since it has suffered defeat, it is almost ready to adopt the "rule or ruin" policy. It is evident that these individuals prefer to filibuster and to occupy time in parliamentary sparing and hearing themselves talk, than to listen to the reading of well prepared scientific papers. It is a notable fact, that these persons rarely take any part in the proper work of the meetings. Personal feeling, personal desire, personal vindication, personal themes, personal benefit, crop out in their every action and become prominent features, and to those who go there for the advancement of scientific medicine, repulsive features of the society.

Lansing will be the next place of meeting. Its railway and hotel accommodations are well adapted for receiving and entertaining all who can attend. But the delightful excursions that closed the two meetings preceeding the last, made such pleasurable impressions upon the "inland" physicians, that a decided murmur of regret and disappointment was heard, that the place of meeting was not fixed at some lake shore city.

The following officers were elected for the coming year: President, Dr. Charles Shepard, of Grand Rapids; First Vice President, Dr. Stoddard, of Muskegon; Second Vice President, Dr. H. O. Walker, of Detroit; Third Vice President, Dr. C. T. Newkirk, of Bay City; Fourth Vice President, Dr. H. B. Hemenway, of Kalamazoo; Secretary, Dr. George Duffied, of Detroit; Treasurer, Dr. H. D. Hagadorn, of Lansing.

CANCER OF THE BREAST.

In a clinical lecture delivered at Saint Mary's Hospital, Mr. Edmund Owen observed that, though clinically and histologically, encephaloid and scirrhus disease are closely associated, the former rarely affects the breast. The difference between hard and soft cancer is only one of degree. The hard grows slowly and consolidates its tissues; the other is of rapid increase, abounding in watery element. The hardness of mammary cancer is characterized in its name, a lump of stucco. The more slowly it grows the harder and heavier it is, and its greatest density is reached in the chronic cancer of old women. This is the least malignant variety, in the cicatrical contraction of its fibrous stroma. cells, lymphatics, and blood-vessels are compressed and obliterated. In younger women, the deposit grows apace, and quickly infects the lymphatics; hence, in them, prompt and vigorous surgical measures are especially demanded.

The hereditary influence of cancer has probably been much exaggerated. Sir James Paget expressed the matter in this way: "If a woman died of cancer, and left ten children to grow up, I should not be surprised if one of them were eventually subject of cancer; but I should be surprised if two were."

Forty to fifty years is the common age for the appearance of cancer of the breast. Then important changes are taking place: menstruation is ceasing, and the mammæ are undergoing physiological retrogression so that perversion of nutrition readily disturbs the homology of the gland.

When an operation is indicated before operation, the urine should be carefully examined for sugar and albumen; for, though diabetes or Brights disease does not necessarily contraindicate operation, still, it is well that the surgeon should have cognizance of the serious complication.

Mr. Owen adopts the rule of regarding the clearing out of the axillary glands as a necessary part of the operation for mammary cancer. He makes it a practice to lay open the axilla, whether enlarged glands have previously been detected or not, it being impossible to be certain about it until the space is opened up and the fingers introduced. The axillary fascia having been incised, the fingers and thumb are introduced; every gland that can be felt whether enlarged or not should be torn out. No pains should be spared over this part of the operation. The knife is not employed except in very severe cases, as when a mass of glands has effected important and firm connections. This interference with the interior of the space does not retard convalescence.

As regards the site of the recurrence his experience is that it is almost invariably in the scar, rarely in the axilla, and scarcely ever in a more distant part of the body. Sometimes the recurrence is manifested by small hard nodules in the neighboring skin the scar itself being apparently healthy.

After operation the patient should present herself for inspection by the surgeon at regular intervals, say of six weeks or two months, so that, in case of recurrence of the disease no time may be lost in operating again. Then in case of suspicious fullness about the axilla or of hardness about the scar, the cicatrix may be widely removed, and the armpit again examined, and if necessary cleared out. To have operated once should not suffice; time after time must the attack be renewed, while there is prospect of operating through uninfected tissue —of getting beyond the disease.

TRANSMISSION OF TUBERCULOSIS TO CHILDREN.

At a recent meeting of the Boston Society for Medical Improvement, Dr. Gannett read a paper with the title "Should Nurses who are Tuberculous be allowed the care of Children?" (*Boston Medical and Surgical Journal*, April 29). Premising that he was not speaking of wet-nurses, and giving a slight sketch of the doctrine of the transmissibility of tuberculosis as raised in the bacillary hypothesis, he proceeded to relate two cases of fatal tuberculosis in children of previously good health and without hereditary predisposition, both of whom had been under the care of nurses who were tubercular.

One was a child four years and eleven months old, who died from tubercular meningitis after a three weeks' illness. In addition to the appearances of general acute miliary tuberculosis, there were foci of chronic tubercular broncho-pneumonia and also chronic tuberculosis of the bronchial glands. There was no family history of tubercle; the child was born healthy, and was nursed by the mother until nine months old. At the age of fourteen months the child came under the care of a nurse about twenty-six years old, who had lost one sister of consumption, and was herself pale, but of healthy appearance. The nurse remained in charge for a period of three years and five months, and when the child was four years and two and a half months old it slept with her at night as well as being in her care during the day. About this time symptoms of phthisis developed in the nurse, and she had eventually to give up her situation from increasing weakness, four months before the child fell ill. It is possible that the child was infected through the lungs, which showed evidence of more chronic disease than other organs.

The second case was that of an infant eighteen months old, who also died of meningitis, and in whom caseous nodules occurred in the lungs and bronchial glands, which contained tubercle bacilli. The only case of tuberculosis on the father's side was that of a great-aunt, who died of this disease after nursing her husband for the same affection; and on the mother's side a cousin had died of phthisis. The child in question was the youngest of three; its nurse, a Scotchwoman, twenty-two years old, was subject to colds and coughs, and developed signs of phthisis. She was in charge of the child for eleven months, from the age of six weeks.

Dr. Gannett did not desire it to be thought that these cases proved that the children were infected by their nurses, but that there was "sufficient probability of such infection as to render it important for physicians to caution the laity about allowing children of a tender age to come into too close or frequent contact with nurses and others who are tubercular.

In the debate that followed, Dr. Minot thought there could be no doubt that the children were infected as stated; but he could only recall one case of such a form of infection, namely, in the wife of a gentleman in the third stage of phthisis. She developed the disease, having no hereditary antecendents. Dr. Fotch, who had seen one of the cases related by Dr. Gannett, said there was certainly a remarkable coincidence in the tuberculosis of the nurse and child, but did not think it justifiable to say that there could be no doubt of infection. He pointed out how frequently tuberculous mothers lived in close contact with their children, who never showed any signs of infection. He thought it prudent, however, to exclude children from the care of tuberculous nurses. Dr. Fritz agreed on this point, owing to the probability of such a medium of infection, remote as that probability may be. Dr. White spoke in the same sense, and Dr. Bowditch declared that he had held phthisis to be contagious under favorable circumstances long before the bacillus was discovered.

CONDENSATIONS.

We learn from the *Lancet* that Dr. Oliver Wendell Holmes will be one of the recipients of the honorary degree of Doctor of Civil Law at the commemoration at Oxford.

THE time for holding the Sanitary Convention at Coldwater, under the auspices of the Michigan State Board of Health, has been changed from September 23 and 24 to Thursday and Friday, September 9 and 10, 1886.

IT is stated that M. Pasteur has been so favorably impressed by the scientific intelligence of Dr. Valentine Mott, of New York, that he has, for the first time, broken through his rule not to allow his virus to go out of his own hands.

EXTREME MEASURE FOR CLUB-FOOT.—Professor Verneuil lately cured a severe case of club-foot by removing the scaphoid, cuboid, astragalus and a part of the os-calcis; the vast gap notwithstanding, the child recovered perfectly and was able to walk very fairly. An open dressing with iodoform was employed.

PUERPERAL CONVULSIONS.—There is reported in the *Lancet*, by Dr. Jas. Murphy, three cases of puerperal eclampsia treated successfully with pilocarpine. He has treated six cases, they being the only cases which he has seen during the past three years, and in their treatment pilocarpine has acted so satisfactorily that he states there is little more to be desired.

TYPHOID FEVER IN THE UNITED STATES.—About twenty-five thousand deaths from typhoid fever occur in this country annually, and this represents fully one hundred and fifty thousand cases of the disease. The hundred and twenty-five thousand persons who recover, lose six weeks out of their lives, and carry perhaps some vistiges of the fever's influence for years.

PASTEUR'S PATIENTS.—The last fatal case under treatment by Professor Pasteur, appears to be peculiar and should not, in all fairness, be placed against his method of prevention. The wounds themselves made about the head, which were of an unusually severe nature, may fairly be regarded as possibly of a fatal character in themselves apart from the introduction of the virus of rabies.

M. LESSENNE has announced a certain sign of death, which is simple, and its worthiness can easily be tested. After pricking the skin with a needle the puncture remains open, just as when a piece of leather is pricked. On the living body, even if the blood does not come to the surface, as would happen if the person were hysterical, the pin-prick closes at once, and does not leave the slightest trace.

AGAIN COCAINE.—The distress which females suffer from the presence of the turgescent carunculæ at the urethral meatus can be greatly relieved by the use of a four per cent. solution of cocaine, and under its influence the tumor can be removed almost painlessly. Pruritus vulvæ, which sometimes baffles all efforts for relief, may be quieted for a time by the use of this remedy, and thus the patient be enabled to get some quiet rest.

PROGRESS is the title of a new "monthly magazine for students and practitioners of medicine," edited by Dr. Dudley S. Reynolds, of Louisville, Kentucky, formerly editor of the *Medical Herald.* It is clear, clean, and pretty, and shows that it is edited and printed by experienced men. The style used to display title of article and name of contributor is "English, you know," but pleasing and in good taste. We give the new comer a hearty welcome and write *Progress* on our exchange list.

PHOTOGRAPHING THE RETINA OF THE LIVING HUMAN EYE.—Several investigators of England have recently been able to obtain a very fair representation of the fundus of the eye. The difficulties of making a good photograph of the fundus are extreme. The first experiments were made by placing a small camera fitted with a two-inch lens in the place of the observer's eye behind an ordinary opthalmoscopic mirror, but various modifications of this place have been made.

WE acknowledge the receipt of a box from Reed & Carnrick containing samples of their "Liquid Peptonoids with Coca," and of "Carnrick's Soluble Food." The latter was used by a patient, an elderly gentleman suffering with chronic Bright's disease, whose stomach would not tolerate a free milk diet, with very satisfactory results. These preparations are admirably adapted to the feeble, both old and young, and to all whose powers of digestion and assimilation are deficient and weak.

IN Paris, the Council of Health, has decided to abolish dairy stables, in which upwards of five thousand cows are kept in stalls and often fed unwholesome food. Careful investigation shows that a majority of the animals are diseased, and that their milk swarms with bacilli similar to the bacilli of tuberculosis. As it has already been proven that milk is a ready communicator of typhoid fever germs, the closest sanitary scrutiny should be exercised over the dairy supplies of cities.

DR. J. FRANCHESCHIA, of Buenos Ayres, states that no rabies has been observed in that province during the past fifteen years, although the proportion of dogs kept there is larger than in any European country. He believes that rabies may be produced idiopathically in dogs by feeding them on vegetable food exclusively. In Europe, meat is scarce, and hydrophobia correspondingly common, but in the Argentine Republic, meat is the common food of dogs, and hydrophobia is unknown.

INFANTICIDE BY PERAMBULATORS.—Dr. Maglagan, the medical officer of the Hepham Rural Sanitary District, while calling attention to the fact that in his district one hundred and twenty-four children out of one thousand die during their first year, attributes much of the mortality to "inflammatory disease, cerebral and pulmonary," caused by exposure in perambulators, "This," says the *Lancet*, "is a startling, but not, we fear, unreasonable opinion. There cannot be any question that young children are placed at a very great disadvantage, as regards the risks attendant on exposure when they are lying inactive in a vehicle of this description, either in the sun or pushed against the wind."

NURSES AND THE HYPODERMIC SYRINGE.—Under the heading of "High Nursing and Hypodermic Injections" the *Lancet* protests very properly against the practice of intrusting hypodermic medication to nurses, however well trained they may be. There is reason to fear that this ready method of drugging is practiced altogether too much, and its relegation to nurses even under instructions is undoubtedly calculated to encourage laymen in restorting to it themselves. The hypodermic syringe figures too often in the armamentarium of the morphia habitue, and it seems to be the duty of the profession to refrain from any measure, however indirect, that may tend still further to popularize it.

INQUIRY: ARSENIC IN SKIN DISEASES.—The editor of the *Journal of Cutaneous and Venereal Diseases* is desirous of ascertaining to what extent arsenic is used by American physicians in the treatment of skin diseases, and also the results of their experience as to its therapeutical value. The readers of THE PHYSICIAN AND SURGEON are requested to forward information upon the following points: Are you in the habit of employing arsenic, *generally*, in the treatment of skin diseases? In what diseases of the skin have you found arsenic of superior value to other remedies? What ill-effect, if any, have you observed from its use? What preparation of the drug do you prefer? And in what doses do you employ it? Address, Editor of *Journal of Cutaneous and Venereal Diseases*, 66 West Fortieth street, New York.

A CASE of spontaneous transformation of morphine in apomorphine is recorded in the *British Medical Journal:* A solution of hydrochlorate of morphine for subcutaneous injection (three per cent.) was ordered for a patient, and its injection was promptly followed by relief of pain, without any gastric symptoms whatever. Eleven months later the patient made use of the same solution, but this time the injections gave rise immediately to violent and uncontrolable vomiting. The solution was given to a well-known analyst at Paris for examination, and he ascertained that apomorphine was present, thus accounting for the sickness. He recommended, in consequence, that solutions of the salts of morphine should never be kept longer than four weeks, and that freshly prepared solutions should not be mixed with the old.

WHEN NOT TO GIVE CHLOROFORM IN PARTURITION.—Dr. Savill, of England, is authority for these directions. (1) Never give it to a woman who has a tendency to flood during every confinement, or to those who have great relaxation of fibre, or weak, anæmic women in their eighth or tenth confinement, except for necessity. (2) Do not give it when labor is complicated with severe vomiting, or with acute heart or lung trouble, unless there be an imperative demand for it. (3) It should not be given to complete anæsthesia except for operations, convulsions or spasms of the cervix, and then one person should devote his entire attention to it. (4) The inhalation should be stopped directly when the pulse becomes weak or the respiration irregular. (5) Do not give it if there be grounds to fear a fatty or enfeebled cardiac wall. In all cases where it has been given, there should be extra care to prevent postpartum hæmorrhage.

IN discussing the question: "Therapeutics in Typhoid Fever," Dr. James Tyson, of Philadelphia, stated, that when he found it was necessary to keep up a continued antipyretic effect by the use of cold water externally, he applied towels dipped in ice-water and wrapped about the trunk of the patient. Antipyrine causes chilliness and chattering, which have a bad moral effect, and small doses soon loose their effect. He had employed small doses of thallin in four-grain doses with the effect of reducing the temperature 2.5° in half an hour; but with the same objectionable chilliness and chattering following. The same medicine had been repeated in half the dose with the same good result, and without the unpleasant effects, but its influence was very transient. He considered antipyrin and thallin invaluable for the reduction of temperature, except when a continued antipyretic influence is required, and then he prefers the external use of cold water.

AN investigator of Saint Petersburg, in order to examine the comparative effects of hot baths, pilocarpine, and hot wet-sheet packing in nephritis, treated the same patients on different days by means of each of these methods, observing the effects on the temperature, pulse, etc. Fifty-seven observations were made on seven patients, who were as nearly as possible under indentical conditions. The temperature rose considerably after the baths, and even at the end of three hours was always above normal. The packing caused it to fall at first; but after an hour it rose, and returned to its original height within three hours. With pilocarpine it was reduced for two hours, and then rose to normal. The pulse corresponded to the temperature with the baths, but became slower with both packs and pilocarpine. The patients expressed themselves as feeling the most improvement after the baths; the pilocarpine causing complications, such as headache and nausea, and in one case vomiting and collapse.

THE treatment for chronic Bright's disease is summarized by Dr. Winchester, of Macon, Georgia, as follows: To meet the indications for treatment we should first intercept the operating cause (as intoxicating drinks and exposure to wet and cold) to prevent further damage to the kidneys. Remove all unfavorable conditions surrounding the patient. Clothe him in flannel, and let him avoid severe cold. Give him good, light and nutritious diet, especially milk; vegetable bitters for his dyspepsia, iron to prevent or to cure the anæmia; warm baths, followed by friction, to keep the skin active; and let him have moderate exercise. For the dropsy give hydragogue cathartics and diaphoretics. When uræmic symptoms begin to show themselves we must bend our efforts to eliminate the toxic principles by free purgation aided by free diaphoresis. Elaterium and pilocarpine would probably best meet these indications. Chloroform is to be used to control convulsions, and blood-letting is permissible in exceptional cases only.

BROMIDE OF POTASSIUM AND LOTIONS OF ETHER FOR SUNSTROKE.—An article by Dr. Hughes, of Saint Louis, in the *Weekly Medical Review* calls attention to the great value of bromide of potassium in this affection to be given by mouth or rectum. He claims that it brings about more speedily, in the gravest cases, the return of the patient to himself mentally, and averts the serious brain sequelæ, immediate and remote, of this always serious affection. The acute insanity of sunstroke much sooner subsides under its use than from the cold treatment alone. Dr. Hughes's plan is to give from sixty to one hundred and twenty grains the first hour, and sixty grains every hour or thirty grains every half-hour largely diluted in peppermint water; sulphuric ether freely applied to head and spine and fanned to increase evaporation until six ounces are used; at the same time using ice at the arms, wrists, abdomen, and legs, and in extreme cases, injections of ice-water into the bowels with ginger and capsicum, but ordinarily moderately cold water with two hundred grains of bromide of potassium.

TARTAR.—This is a deposition by precipitation of the salts held in solution in the saliva, which is brought about by its contact with air and mucus. The quantity formed varies largely in different subjects, for some salivas contain a small proportion of salts, and therefore the deposit is small; also, if the precipitate meets with an acid—such as is so frequently found round the necks of the teeth, and due to fermentation—sufficient to neutralize it, it will be redissolved. "Thus," continues the *Lancet*, "the presence or absence of tartar has a clinical significance. If it is very abundant, it indicates an alkaline reaction both of the saliva, and of the parts around the teeth, and a consequent immunity from caries; but if allowed to accumulate, it produces gingivitis by simple traumatic irritation. In some very rare cases it is entirely absent, owing to an acid reaction in the mouth, which leads to the most disastrous ravages upon the teeth. The gingivitis due to tartar varies according to the quantity deposited. In the more severe cases the gum will be stripped up exposing the roots of the teeth; the gum will be festooned, presenting a fungating appearance, and will bleed at the slightest touch; the teeth will loosen and change position, owing to the inflammation having extended to the alveolo-dental membrane and the absorption of the alveolus. The treatment consists essentially in a vigorous use of the tooth-brush, and the periodical removal of the incrustation. Any preparation which will remove it must be acid and therefore very deleterious to the teeth themselves."

"RICKETS, in the widest sense," says Bohn, "is an extremely common condition: hardly five per cent. of all children escape it altogether." But we must not wait for our diagnosis and treatment until the bony skeleton shows it absolutely; it should be recognized and treated in its earliest stages. The disease depends on imperfect nutrition. Habitual constipation is often associated with its earlier development. Sometimes, on the other hand, there is diarrhœa. The earliest symptom is retarded or irregular appearance of the teeth, because the front teeth feel the want of ossifying material more than any of the other bony formations. The thinning of the bones of the skull, specially of the occipital bone, is another very early features in the disease. All thinning of the bones of the skull in the earlier months is due to rickets. The edges of the sutures do not ossify as they should do by the end of the second month. These symptoms are often to be noted when the child appears to be otherwise in excellent health. The diagnosis between syphilitic and rachitic diseases of the bones in the earlier months can only be made in the living infant by the presence or absence of other signs of syphilitic disease. Prognosis and treatment must be considered together. The three essentials for spontaneous recovery are suitable nourishment, fresh air, and sunlight. The first of these requires the constant and minute attention of the physician. The general principles are the same, but the particular diet must be modified to suit individual cases. The warm bath is of great value as an adjunct to the cure. The treatment by drugs can only be symptomatic, and directed against the various derangements as they arise. In rachitic anæmia, whether the child be fat or thin, iron is essential; and it is assisted in its action by the addition of a bitter. The value of cod-liver oil is recognized by all. In an appendix to the paper are some remarks on Kassowitz's treatment by phosphorus. It was introduced after the paper was written, and the author had not been able to make a full trial of it; but as far as he had gone, it had not come up to his expectations.

NEW PUBLICATIONS.

THE PRINCIPLES AND PRACTICE OF SURGERY. By Frank Hastings Hamilton, A. M., M. D., LL. D., Late Professor of the Practice of Surgery, with Operations, and of Charity Surgery, in Bellevue Hospital Medical College; Consulting Surgeon to Bellevue Hospital, to the Bureau of Surgical and Medical Relief for the Out-Door Poor at Bellevue Hospital, to Saint Elizabeth's Hospital. and to the Hospital for the Ruptured and Crippled; Fellow of the New York Academy of Medicine, etc. Illustrated with four hundred and seventy-two engravings on wood. Third edition, revised and corrected. 8mo: nine hundred and eighty-nine pages. New York: William Wood & Company, 1886.

It was needful that this admirable work should be revised, and we thank Dr. Hamilton for stepping aside from his practical professional duties to bring it up to the present state of surgical science. The revision has been thorough, but the original intention and scope of the work has not been changed. It remains a text-book for the student and a guide to the surgeon. In it the student will meet only those methods which, in the experience of the author has been the most satisfactory. He has made no attempt to include what is obsolete and discarded, or what is speculative and untried. He teaches the lessons which have matured and ripened through the experience and study of more than forty years of public teaching. Within this period anæsthetics were introduced and antiseptics have been studied and their value recognized. From having this extended experience the author claims the privilege to institute comparisons and to draw conclusions. But in his usual caution he does not rush to embrace all that has been introduced. On the subject of antiseptics, he adds a supplementary chapter on "the art of primary union, or union by adhesion in large incised wounds; with a consideration of the value of antiseptics in these and other wounds." Dr. Hamilton here makes a review of the methods of treating wounds. Through the influence of Mr. Lister's method there has been a return to the old practice of those who years ago advocate a "primary union." The author feels that we are indebted to Mr.

Lister for having restored confidence in union by adesion, but thinks that his excellent results have been obtained, not by a literal compliance with the rules which are the logical deduction from his theories, but by strict enforcement, in the practical application of his theories, of certain other conditions, which he seems to regard as accessory and incidental rather than of paramount importance. If the author's view be correct he sees no reason for the various manipulations and devices for the purpose of excluding germs, and that they serve no other purpose than do the walking, talking, and gesturs of the pretidigitator. They abstract the attention and conceal the adroit manipulation by which the trick is actually performed. The condensed practical form of the work, makes it, now that it is brought abreast with the times, a book for the practitioner and the student. It will not supplant the late larger works on surgery, but as it contains all the principles embodied in them, it will again become the popular reference and text-book.

DISEASES OF THE SPINAL CORD. By Byron Bramwell, M. D., F. R. C. P. (Edinburgh), Lecturer on the Principles and Practice of Medicine, and on Medical Diagnosis in the Extra Academical School of Medicine, Edinburgh; Pathologist to the Edinburgh Royal Infirmary, etc. Illustrated by fifty-two full-page lithographic plates, in colors, and many fine wood engravings. Being Volume I of Wood's Library for 1886. New York: William Wood & Company.

This book is written by a teacher, and in many places the colloguial style of the lecture-room, the most pleasing and instructive of all styles, is used; in other parts, for the sake of condensation the matter is arranged in the form of headings.

Dr. Bramwell, believing that the memory is more strongly impressed by illustrations in form of diagrams, drawings, and the objects themselves, than by wordy descriptions, has abundantly introduced into the text diagrams and drawings: the latter in the form of chromo-lithographs and wood cuts representing microscopical sections of the normal and pathological conditions of the cord. The colored-lithographs are drawings from his own hand and are representations of his own sections.

The work is written in that clear and instructive style, that it is itself a teacher. Facts are not stated simply as such, but they are set forth in a manner that they are explained and elucidated. The author's method of teaching the anatomy and physiology of the cord, makes the structure and office of this complex organ, so far as known, clear and perfectly comprehensible. We earnestly commend this plan of first reducing to a minimum the difficulties of understanding these diseases by giving this clear exposition of the normal structure and function before dealing with them in diseased conditions.

In the chapter on pathology a concise description of the leading facts in general pathology of the spinal segment is given, and the alterations in function resulting from lesions of its different parts are indicated. The special pathology of individual lesions is given under the special diseases of the cord.

Dr. Bramwell insists upon the great importance of system and method in clinical examination, and points out that a methodical plan of case-taking is especially important in the care of the spinal cord. He details a method that is simple and systematic, and which will be found to work well in practice. The functional affections of the cord are fully and carefully considered, and special attention is called, and considerable space given to the important and difficult subject of concussion of the spine, and to the method of examining railway cases.

We feel that William Wood & Company have done the profession a favor in giving in their "Library" so valuable a work. In the past but slight attention was given to the diagnosis and treatment of spinal diseases, from the fact that but little was known of them; but, thanks to the labors of Turch, Lyden, Charcot and numerous others, we are becoming acquainted with spinal complications, and with such works as this produced by Dr. Bramwell, it is brought within the province of every practitioner to have a certain familiarity with these affections.

DISEASES OF THE DIGESTIVE ORGANS IN INFANCY AND CHILDHOOD. With Chapters on the Investigations of Disease, and on the General Management of Children. By Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, Phiadelphia, etc., etc. With colored plate and other illustrations. 8mo: three nundred and eighty-five pages. Cloth. Philadelphia: P. Blakiston, Son & Company, 1886.

In his introduction, Dr. Starr claims that while the clinical investigation of diseases in children is usually considered so difficult, it is in some respects easier than the same study in adults. Because in the child, disease is commonly uncomplicated, by previous affection, or tissue lesions, and never by vicious habits or by mental overwork and nerve-strain. To overcome the difficulties which arise from the absence of speech, in deficient knowledge, from willfulness, fear, etc., the author submits a plan for conducting the clinical investigation, which he has arranged in three regular stages as follows: (1) Questioning the attendants; (2) Inspecting the child; (3) Physical examination. Full instruction and many thoughtful suggestions are made regarding that which can be learned by a methodical search in these three directions.

The author appreciating the great necessity in the successful treatment of diseases of the digestive organs in infancy, of paying attention to the general regimen, and knowing that the student and young physician are usually not as thoroughly instructed in this, as in the administration of drugs, it is given prominence in his work. Thus, without neglecting drugs and therapeutical means, such measures as selection of suitable food, artificial digestion, regulating the clothing, bathing and other elements of hygiene, are especially considered.

Dr. Starr's reputation as a young and earnest investigator, and a forcible and clear writer, has relieved the reviewer of his admirable work, of all commentation, other than to point out its special features.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. Playfair, M. D., F. R. C. P., Physician-Accoucheur to H. I. and R. H., the Duchess of Edinburgh; Professor of Obstetric Medicine in King's College; Physician for Diseases of Women and Children to King's College Hospital; Consulting Physician to the General Lying-in Hospital, and to the Evelina Hospital for Children; Late President of the Obstetrical Society of London; Examiner in Midwifery to the University of London and to the Royal College of Physicians. Fourth American from the Fifth English edition. With Notes and Additions by Robert P. Harris, M. D. With three plates and two hundred and one illustrations. 8mo: six hundred and sixty-three pages. Cloth, $4; leather, $5. Philadelphia: Lea Brothers & Company, 1886.

The physicians of America are familiar with and know the merits of this most excellent work. For years it has been one of the standard text-books on obstetrics in our medical institutions. The author, and the editor of the American editions, not resting on the results of their past labors, have at short intervals, issued later editions. This last, the fourth American edition, has been brought up to the latest period by Dr. Harris, whose researches in obstetrics are well known to the profession.

FRACTURES AND DISLOCATIONS. By T. Pickering Pick, F. R. C. S., Surgeon to, and Lecturer on, Surgery at Saint George's Hospital; Member of the Court of Examiners, Royal College of Surgeons of England. Illustrated with ninety-three engravings. 12mo: five hundred and twenty-four pages. Philadelphia: Lea Brothers & Company, 1886.

This manual was written from a clinical stand-point, and the author has followed his own observations and experiences, as regards symptoms and treatment, that have been made, and found most efficacious in his practical experience in the wards of Saint George's Hospital. In following this course, and in order to keep the subject within reasonable limits, the author admits in his preface, that he has been compelled to be, to a certain extent, dogmatic. We notice, however, that the author's views are not stated with any marked degree of preference over those of various authors cited. But we note under "Fractures of the Humerus" that no reference is made to the views of Dr. B. Frank Hamilton, regarding the cause of frequent non-union of this bone following fracture, and his method of treatment to prevent this unfortunate result.

In the reduction and treatment of Colles's fracture no mention is made of the methods now employed by many American surgeons. In numerous cases which we have seen reduced by forcibly extending the wrist and depressing the distal fragment, and dressing the limb with light pads of cotton batting, and roller bandage, there has been no tendency for the displacement to recur, or any deformity to exist after union.

Under the treatment of dislocation of the hip-joint by manipulation, the author sums up the process in the following terse form: "Bend up, roll out, turn out, and extend."

We can recommend the work as one that is trustworthy, and in which the practitioner of medicine and surgery will find a convenient and reliable guide.

A MANUAL OF ORGANIC MATERIA MEDICA. Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms, for the use of Students, Druggists, Pharmacists and Physicians. By John M. Maisch, Phar. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Second edition, with two hundred and forty-two illustrations. 12mo: five hundred and twelve pages. Cloth. Philadeiphia: Lea Brothers & Company, 1886.

The author has not designed this treatise to give instruction in the therapeutical application of the various drugs. Its object is to present a system of classification which would be simple and practical. The classification adopted is based upon the physical and structural properties of the drug. The plan being deemed more especially adapted to the needs of the pharmacist and druggist. Each drug is taken up and considered as to its origin, habitat, description, structure, admixtures and substitutions, constituents, properties and dose.

The vegetable drugs are divided into the cellular and non-cellular. Under these heads those similar in structure are grouped.

The author has aimed to embrace all the drugs recognized by the United States and British pharmacopœias, together with important old but unofficinal drugs, with these which have been revived or suggested.

The text is well arranged, concise, and compact, and the plates well executed, making it a work that will be found very servicable to the medical student who wishes to acquire a knowledge of pharmacognosy or the identification of drugs with their properties and doses; and to the druggist and pharmacist as a book of ready reference on materia medica.

BOOKS AND PAMPHLETS RECEIVED.

REPORT OF THE BOARD OF MANAGERS OF THE PENNSYLVANIA HOSPITAL, AND THE CONTRIBUTORS, AT THEIR ANNUAL MEETING HELD FIFTH MONTH, THIRD DAY, 1886. Philadelphia: Collins Printing House, 1886.

ON THE STRUCTURE AND FUNCTION OF THE SPHÆNDIA OF THE ECHINOIDÆ. By Howard Ayers, Ann Arbor, Michigan, United States of America: Reprinted from the *Quarterly Journal of Microscopical Sciences*, for November, 1885. London: Printed by J. E. Adlard, Bartholomew Close, 1885.

BRIGHT'S DISEASE AND ALLIED AFFECTIONS OF THE KIDNEYS. By Charles W. Purdy, M. D., Queen's University, Professor of Genito-Urinary and Renal Diseases in the Chicago Polyclinic, etc. 8vo: two hundred and eighty-eight pages, with eighteen illustrations. Cloth, $2. Philadelphia: Lea Brothers & Company, 1886.

COCAINE IN HAY FEVER. A lecture delivered at the Chicago Medical College. By Seth S. Bishop, M. D., Surgeon to the South Side Fire Dispensary, and to the Illinois Charitable Eye and Ear Infirmary: Member of the American Medical Association. Reprinted from the *Journal of the American Medical Association*, February 6, 1886.

MANUAL OF DIFFERENTIAL MEDICAL DIAGNOSIS. By Condict W. Cutler, M. S., M D., Physician to the New York Dispensary; Assistant Surgeon New York Hospital, Out-Door Department; Late House Physician Bellevue Hospital, etc., etc. 12mo: one hundred and sixty-one pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1886.

A MANUAL OF DIETETICS. By J. Milner Fothergill, M. D. (Edinburgh), Physician to the City of London Hospital for Diseases of the Chest (Victoria Park); Honorable M. D. Rush Medical College, Chicago, Illinois; Foreign Associate Fellow of the College of Physicians, Philadelphia. 8vo: extra muslin. Two hundred and fifty-five pages. Price, $2.50. New York: William Wood & Company.

ETHICS OF FEMALE STERILITY. By A. Reeves Jackson, A. M., M. D., Professor of Gynæcology in the College of Physicians and Surgeons, of Chicago; Fellow of the American Gynæcological Society, British Gynæcological Society, Chicago Gynæcological Society; Chief of the Gynæcological Department, West Side Free Dispensary, etc. Reprinted from *The Physician's Magazine*, Volume I, Number III, Philadelphia.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by William Pepper, M. D., LL. D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, Assisted by Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume V: Diseases of the Nervous System. Philadelphia: Lea Brothers & Company, 1886.

THE ANALYSIS OF THE URINE, with special reference to the Diseases of the Genito-Urinary Organs. By K. B. Hofmann, Professor in the University of Gratz, and R. Ultzmann, Docent in the University of Vienna. Translated by T. Barton Brune, A. M., M. D., Late Professor of the Practice of Medicine in the Baltimore Polyclinic and Post-Graduate Medical School, and Lecturer on Clinical Medicine in the University of Maryland, and H Holbrook Curtis, Ph. B., M. D., Fellow of the New York Academy of Medicine; Member of the County Society, etc. Second edition, revised and enlarged. 8mo: three hundred and ten pages. Cloth, $2. New York: D. Appleton & Company, 1886.

MEDICAL DIGEST.

THE DIETETIC TREATMENT OF DISEASE.

From a paper read by Dr. W. T. Dawson, of New York, before the Manhattan Medical and Surgical Society (*Virginia Medical Monthly*) the following is taken:

By dietetic treatment I mean all that the word may imply, provided we feed with the same keen reasoning that we apply to the elucidation and harmonizing of clinical facts and theoretical arguments. Feed, when indicated, to the utmost limit of the power of the system for assimilation; in other cases with more moderation, but no less logically and persistently; while there is still a large third class that, I doubt not, may often be physiologically starved in certain directions, with happy results. In short, in general terms, all disease may be considered as sthenic or asthenic—"something less than life," as Hughes Bennett cleverly puts it—according to the most modern research which reduces it to a perversion of nutrition, a definition which is itself pregnant with suggestions for our guidance.

The ancient Arabian treatment of syphilis by starving the poison out of the patient was a heroic example of dietetic treatment; yet I can fancy there may be cases of various kinds where such procedure might be proper and beneficial. As our specifics were then unknown, such practice seemes intelligent and rational. Have you not frequently seen one of those persistent, racking neuralgias—the so-called sick headaches of nervous, anæmic, poorly-nourished women—yield at once to a generous and full diet of the most nutritious kind, after resisting all remedies, locally and internally? It is often very difficult to induce a patient to eat as a therapeutic measure, and the physician sometimes perils his practice by such advice.

Our distinctively American disease, dyspepsia, will best illustrate my notion of dietetic treatment; and the extent to which it enters into most of our ailments, in some form, should make it doubly forcible. Let the variety be what you will; let the fault lie in a deficiency, or excess or supposed faulty composition of any of the digestive fluids; let it be gastric, intestinal, or hepatic, or all combined, and I do not hesitate to say that, so long as the trouble is functional, it is curable, *but not by medicines*. Certainly the various symptoms may be more or less relieved and temporarily modified by drugs. But you will run the gauntlet of stomachics and anti-dyspeptics in vain; for cease your medication and your case is soon as bad as ever. .

Now try the dietetic treatment, easily enough suggested, but much more difficult of application than the former. It requires not only self-denials, but great patience and perseverance, for it is no easy task to convince many people that drugs are totally unsuited to their particular case. Search out and find, as can always be done, what diet is and is not best for each case; make your rules absolutely inviolable and compel your patient to eat *only* what you order—all of which is feasible and not inconsistent with a wise regard for the patient's appetite and inclinations, for if you make eating a labor you will largely impair its efficacy. Above all, insist on thorough mastication, slow and frequent eating, with the utmost regularity, and better four light meals a day than two hearty ones. Never allow the dyspeptic to satisfy his appetite, however palatable or digestible the food may be, but rather require him to stop a little hungry.

Here I must protest against the position not long since assumed by the late Dr. Flint. He says let the patient eat any and everything at all times and under all circumstances; in fact, consult his own fancy and the caprice of his appetite and he gets the same results; that is, an implied not definitely specified case, in the nature of things the very best possible prognosis. This I consider both unscientific and irrational.

The one great difficulty is to induce the dyspeptic to eat at all; he loaths *all* food, and its mere suggestion is often sufficient to provoke a violent aggravation of his ailment. Does the doctor hold that the dyspeptic stomach is in a condition to receive and dispose of that which is its proper fuel, so to speak, when the machine is in complete working order? If so, where is the dyspepsia or indigestion? All reason and experience negative such views, and, were his position otherwise tenable, what becomes of all our proved and accepted physiology? On the contrary, it is just such unwise and indiscreet conduct which has brought about the existing condition. For example: Called to any given case of sickness, the average procedure is as follows: An elaborate pathological differentiation of the varieties of the type under consideration, a careful and generally correct diagnosis, minute details as to treatment and dosage, with a parting injunction in very general terms, to feed the patient well; give him all the milk he can drink, eggs, broths, soups, beef-tea, stimulants, etc., *pro re nata*, which actually means "according to fancy or convenience."

Now this, I hold, is all wrong, and without doubt an impediment to the successful battling with diseases. Our materia medica and diet being both so largely taken from the vegetable world, there is no reason why the two subjects should not receive equal attention; and I venture to predict that in the near future the scientific study and practice of this subject will very materially increase our ability to cure.

As a matter of fact, I am thoroughly convinced that the integrity of the whole digestive apparatus is our greatest safeguard against the invasion of disease, so that it is not unreasonable to infer that its restoration, when impaired, will also contribute, in great measure, towards the eradication of any complication or intercurrent morbid condition.

I will merely hint at the contrast of two epileptics, rheumatic, gouty persons; the one treated mainly with drugs (the usual practice), the other being fed first and drugged afterwards. It needs no pen picture to set them off; such cases are encountered by us daily, but not as a rule.

As to foods: Their quality, quantity, method of preparation, and uses as a therapeutic means are yet an undiscovered country, an unknown factor in our practice.

Liebig's division of food into tissue food and fuel food furnishes a good working basis for the study and practice of this subject. He holds that certain food constituents are consumed in building up tissues which are constantly wearing out and in need of repair, in health as well as in disease, while still others go to supply that force of energy or vitality implied in the mere fact of existence. Under the former head may be classed all nitrogenized, albuminous material, or that which being only slowly or partially oxidizable, requires more time and greater vigor of function for its digestion and assimilation, such as meats.

Fothergill says of beef-tea, which is as ever present in the sick-room nowadays, as it is generally useless, "it is a stimulant, not a food, from the presence in it of nitrogenized principles, which are past the tissue-stage, and therefore useless as 'tissue food,' while its 'fuel food' value is *nil;* to give it to the hungry man is to 'give him a stone when he asks for bread'." This is strong language, and perhaps will provoke opposition, but physiological chemistry has rendered the verdict, from which there is no appeal. Beef-tea is nothing but a watery solution of those principles, for which there is no positively urgent demand in the acutely sick, to whom we are most accustomed to give it. What such a patient needs is "fuel food;" that which being quickly consumed, supplies the material to carry him over the immediate danger; and such are the hydrocarbons, fats, oils, starches, sugars, etc., articles rich in water and easily digestible.

Milk, combining all the various ingredients of the several classes of alimentary principles, is a typical food, of course; but there are conditions where even it is not admissible in its natural state, especially and unfortunately, those acute states, in which we are so apt to order it, and find on our next visit that it has been rejected by the stomach.

Without meaning to confine myself to fluids, I cannot omit the observation that I think our notions in regard to the use of water as an article of diet are both crude and faulty. Being nature's greatest solvent, and entering into such an extent as it does into the composition of all organic matter, it is very necessary that we should appreciate its importance and function in our physical lives. Perhaps some of you have noticed that there are certain persons who, for various reasons, drink very little water. My observation warrants the assertion that they are generally of poor physique, especially in respect to vitality and muscular development, but exhibit a correspondingly sensitive and highly organized nervous system. Their capacity for labor or fatigue is measured by their will power, and any disturbance of the delicate nervous balance is sufficient to induce grave disorder of the various functions or the economy as a whole. Undoubtedly that water should be taken freely is a normal demand of nature, and the idea (which I have often heard offered in an explanatory way) that it dilutes the digestive juices, interfering thus with proper digestion and assimilation, is shown by experience to be arrant nonsense. Let us be careful to put the blame where it justly belongs, for observation shows the free water drinker to be well-nourished and developed, functioning well in all particulars, strong, and often a little too fat. I never restrict a patient's use of water, at a proper temperature, of course; and instead of disagreeing, it is always grateful, and seems to meet a want which nothing else can, liquid or solid.

In the matter of chronic disease, we have an equally inviting field. Pathology and the microscope have laid bare the mysteries of tissue, normal and abnormal; but here they desert us, except to stimulate our zeal for remedial agents; and it is possible that enthusiasm has dulled our perception and warped our judgment, since we unconsciously ignore our own teachings.

Our knowledge of the morbid processes of disease should prompt us to the adoption of every means to meet the indications; and, since drugs so entirely fail to supply our needs, may we not wisely invoke the aid of any other treatment which seems so plausible and promising.

I do not propose to discuss the chemistry of foods, but will only refer to the wonderful advances already made in the artificial feeding of the sick by means of the various beef extracts, peptic preparations, and foods of different kinds. They are a step in the right direction, but as yet, are only suggestive of their use. The work is to be done by the organic chemist and the physiologist, but they must fail in the end unless sustained by the enlightened observation and persevering application of the practitioner.

NEW CAUSE OF PROLAPSUS OF THE RECTUM.

Such a case was reported by Boeckel in the *Revue de Chirurgie*, and made the basis of some interesting remarks. The observation is made that the treatment of this accident in children is generally considered very difficult, and the cause is usually believed to be a too great laxity of the rectal sphincter.

Since the year 1881 the author has contended for the importance which congenital narrowings of the upper end of the rectum exercise on the development of the rectal prolapsus. A congenital stenosis does not necessitate, inevitably, an immediate prolapse; such a condition may not appear until the child is six months or a year old.

The reason is, that in early life the liquid stools of the child pass through the stenosed portion easily, while later on, when they have become solid, they cannot do so.

In the cases which have been observed, the stenosis has always been situated at the junction of the rectum and the sigmoid flexure. The prolapsed portion has a conical form—an ox-horn shape—while in cases in which the prolapse is due to relaxation of the sphincter, it has a mushroom shape. An anal pessary has been devised by Boeckel for the cure of this trouble, which consists of a stem seven centimeters long and eighteen millimetres in thickness, with an olivary extremity and a canal throughout its entire length. It joins a circular disc five centimeters in diameter, which is applied at the anus, the stem having been projected into the rectum. Four straps are attached to the disc, the two anterior ones being supplied with buckles, and anterior and posterior ones meet at the shoulders, thus fixing the apparatus. The instrument may be left in place without removal for two days, after which a bath will be required. After wearing it five or six days, a cure is usually produced. The theory of the operation of the instrument is that the contractions of the intestine constantly tend to push the stenosed portion downward upon the olivary extremity of the instrument, and thus dilatation is effected.—*Archives of Pediatrics.*

INFLUENCE OF KAIRIN, THALLIN, HYDROCHINON, RESORCIN AND ANTIPYRIN UPON THE HEART AND BLOOD-VESSELS.

In a series of experiments on this subject, Dr. H. G. Beyer, in the *American Journal of Medical Sciences*, draws the following conclusions:

Kairin.—The conclusions which we may draw from experiments on the frog's tongue with kairin are: (1) That it produces dilatation of the capillaries and veins, which dilatation much exceeds that of the arterioles, which latter is sometimes preceded, sometimes followed, by an abnormal contraction; (2) That it causes a slight acceleration in the current in the arterioles and a slowing of the flow in the small veins.

All the experiments made with kairin on the heart (nine in number), show the great weakening effect it exerts upon the contracting power of the cardiac muscle. In some cases in which this organ happened to be in good working order, and low venous as well as arterial pressure was used, a very slight but transient increase in the rate, and even in the force of its contraction was noticed when the dose was not too large; but this was always quickly followed by signs of general weakening. The entire organ, then, becomes much enlarged, occupying from twice to thrice its normal volume, its contractions become peristaltic, incomplete, and sluggish; the auricles keep well filled with blood, never emptying themselves completely. As a rule, the auricles are much sooner affected and recover much later than the ventricle. Under these circumstances the rate of the heart is much decreased, the amount of work done is sometimes increased, owing to the relaxed condition of the ventricle, but more often decreased, and, finally, diastolic arrest ensues. The heart presents the color of kairinized blood, which, however, again disappears, but, after repeated kairinization, it becomes permanent—in other words, the color of the blood has become the color of the muscular substance of the heart. From this condition the heart was never found to recover; the organ seems as if gelatinized, moves *in toto*, shrinks, and contracts little by little, responds to neither mechanical nor electrical stimulation, and is to all appearances dead. This condition of the heart may almost at once be produced by injecting a two per cent. solution of kairin into its substance, by which arrest in systole is produced.

The temporary diastolic cardiac arrest which kairin produces is most probably due to its stimulating effect on the terminal filaments of the pneumogastric, and the vascular dilatation to a similar influence on the ganglia of the vaso-dilators. Kairin must also be considered a muscle poison.

From the results of experiments, it is quite clear that kairin reduces temperature, both by diminishing heat production and by increasing heat radiation. The distinctive influence it exerts on the red blood-corpuscles, however, and the weakening effect upon the heart, render its employment objectionable and dangerous.

Thallin.—Summing up the results of experiments with thallin upon the heart and blood-vessels of the frog and terrapin, we notice, first, the striking similarity which exists between it and kairin, the only difference, in fact, being that thallin has a much less injurious influence upon the ventricle, the auricle and blood-vessels being equally affected by both drugs.

The temporary diastolic cardiac arrest produced by both these drugs, we are inclined to attribute for the most part to their stimulating influence on the terminal filaments of the pneumogastric. The dilatation of the blood-vessels, most probably, is produced by their stimulating effect upon the ganglia of the vaso-dilators. The subsequent contraction of both heart and arterioles is due to their direct action upon the muscular substance.

Thallin, like kairin, reduces temperature by diminishing heat production, and by increasing heat radiation; as an antipyretic it is less dangerous, but no less objectionable, than kairin, for while its effect upon the ventricle of the heart is less depressing than that of kairin, its influence upon the blood-corpuscles is sufficient to condemn it.

Hydrochinon.—From all the experiments made with hydrochinon on the heart and blood-vessels of the frog and terrapin, we must arrive at the conclusion that it reduces temperature mainly by increasing heat radiation, owing to its influence upon the veins, which it largely dilates, and the capillaries and arterioles, which it also dilates, though to a less extent. Through its influence upon the red blood-corpuscles it probably also diminishes heat production, by an impairment of their respiratory capacity.

The singular but noteworthy fact, observed under the microscope on the frog's tongue and elsewhere, that kairin, thallin, and also hydrochinon change the color preferably of venous blood, seems to point to a peculiar affinity of these substances for such blood, and it is not at all unlikely that the presence of carbonic dioxide in venous blood is the cause of its chemical decomposition underlying the appearance of this phenomenon. The peculiar coloring principle thus set free diffuses itself through the walls of the veins into the neighboring tissues.

When we now compare the action of hydrochinon upon the heart and the blood-vessels of the frog and terrapin, with that of kairin and thallin, the result shows that hydrochinon affects the ventricle of the heart still more favorably than thallin; the auricles, however, are as promptly paralyzed by hydrochinon as they are by thallin, and even kairin. All three largely dilate the veins, for which they show a decided preference, and they also dilate the capillaries and arterioles; the dilatation of the latter, however, is either preceded or followed by an abnormal contraction, especially noticeable when the drug was injected hypodermically. On hypodermic injection of all three of the drugs, slight muscular spasm may be seen on the frog's tongue.

The action of hydrochinon, then, being similar to that of kairin and thallin so far as the heart and blood-vessels are concerned, the explanation of its action must, in like manner, be similar. The peculiar affinity of kairin, thallin, and hydrochinon for veins and venous blood cannot be explained by these experiments.

Resorcin.—A consideration of the results of the experiments leads to the conclusion that resorcin reduces the temperature by increasing heat radiation by the dilatation it produces in the capillaries and veins, especially the latter. The same quite remarkable preference for the venous side of the heart and vascular system is shown by resorcin in nearly the same degree as by thallin and hydrochinon. Resorcin paralyses the auricles in doses which seem to improve rather than impair the contracting power of the ventricle, and it largely dilates the veins, while the arterioles are affected but very slightly.

As is the case with kairin, thallin, and hydrochinon, resorcin reduces the rate of beat of the heart probably by a stimulating influence on the terminal filaments of the pneumogastric, and dilates the vessels through a similar influence on the ganglia of the vaso-dilators. The tonic effect which it has upon the ventricle is most probably due to its direct action upon the muscular substance of the heart. We have, so far, no explanation of the difference in the action of these drugs upon the two sides of the heart and vascular system. Nevertheless, the fact remains that all of the drugs so far considered possess this property nearly to the same extent. The only difference regarding their influence upon the heart lies in the ventricle. Kairin and thallin, in small doses, exercise but a *temporary* tonic influence over its contraction; hydrochinon and resorcin a more permanent one. They all quickly paralyze the auricles and lower the tone of the walls of the veins. The natural consequence is that a much greater quantity of blood will be contained in the veins than in the arteries, and its passage from the veins back into the ventricle is greatly impeded, owing to the paralyzed condition of the auricles. Collapse, therefore, ensues; not so much from failure of the action of the ventricle, as from the danger of *bleeding the animal to death into its own veins*, to use the words of Ludwig.

Antipyrin.—Antipyrin, in very small doses, injected into the lymph-sac of the frog very slightly contracts the arteries, but dilates the capillaries and veins; in large doses, applied directly to the surface of the tongue, it gives rise to extensive dilatation in the veins and also the capillaries; a one per cent. solution of it applied to the tongue of the frog will, after a short time, cause coagulation in all the superficial blood-vessels. The manner in which antipyrin reduces temperature is purely by increasing heat radiation, owing to its extensively dilating the veins and capillaries; but what stamps it as an excellent antipyretic is that, besides dilating the veins, it also has a tonic influence on the heart and slightly increases arterial pressure, or at any rate does not cause a diminution of the same. It has, moreover, no injurious influence on the blood or the muscular tissues, and strengthens the auricles.

The objection to the employment of kairin and thallin as antipyretics is from the fact that they cause heart paralysis, especially affecting the auricles, in doses only slightly larger than are sufficient to produce a lowering of the temperature. But this objection becomes an absolute danger when we take into account the destructive influence upon the blood corpuscles and tissues generally.

Hydrochinon and resorcin, although not exerting the same weakening and directly paralyzing influence upon the ventricle of the heart which is peculiar to kairin and thallin, both paralyze the venous side of the heart, namely, the auricles, and greatly lower the tone of the walls of the veins. The extra amount of blood, therefore, which is driven into the veins through the increased action of the ventricle, is only with great difficulty returned to the ventricle, and here the danger is not so much from failure in the power of the ventricle as in the case of kairin and thallin, as from the danger of *bleeding the animal to death into its own veins.* The intense visceral and especially pulmonary congestion found on postmortem, by Dujardin-Beaumetz, and others, in animals killed by resorcin, seems to confirm this view of the matter.

Antipyrin, though largely dilating the veins, increases the power of contraction of both auricles and ventricle, and has no injurious influence upon the blood nor the muscular tissues, and therefore possesses, indeed, all the good qualities of a perfect antipyretic.

PNEUMONIA IN YOUNG CHILDREN.

Dr. Hoyt, in this paper, gives the results of his experience of eighty-six cases, drawn from dispensary and private practice. He divides them into two series,—one, lobar; two, broncho-pneumonia, the latter being equivalent to our catarrhal pneumonia. Of seventy-four cases under five years of age, eighteen were lobar and fifty-six broncho-pneumonia.

(1) The disease is primary, and occurs often in robust children. It is most frequently ushered in by attacks of vomiting. The fever runs high, and there is great thirst. The cerebral symptoms are often so marked as to obscure the diagnosis. Diarrhœa is not frequent. A positive diagnosis can only be arrived at by the physical signs. The seat of the disease differs from that in adults. The author agrees with Rilliet and Barthez in assigning the following order of frequency: first, right apex; second, left apex; third, left base; fourth, right base. The frequency of apex pneumonias make it of great importance to examine for physical signs high up in the axilla with great care. The physical signs generally resemble those in the adult, but are not so easy to find. Pulmonary congestion occuring in the course of other diseases is often mistaken for pneumonia. It is impossible by physical signs to differentiate these; the congestion can only be recognized by its mobility and evanescent character, rarely lasting more than two days. The mortality in the cases of lobar pneumonia was very small—only one case in the twenty-five died.

(2) Broncho-pneumonia is usually a secondary disease, occurring in the course of an attack of whooping-cough,

measles, scarlatina, or other diseases. It is an inflammation of the mucous membrane and walls of the bronchi, the air-cells, and the interstitial tissues of the lung, the bronchial element predominating. It attacks children in a debilitated condition; its onset is gradual; it rarely terminates by a crisis; and has no typical course. The febrile stage lasts for three or four weeks, and the temperature is very variable. The respirations are very rapid, and the breathing is more labored than in the lobar form; there is more lividity of the lips and cyanosis of the face; and towards the close of the disease, in fatal cases, a drowsiness comes on, the result of carbonic acid poisoning. The cough is frequent and distressing. Both lungs are usually affected, but to a varying extent. The diseased parts are full of moist râles, but pure bronchial breathing is rarely heard. In bad cases more or less of both lungs may become consolidated. These consolidated patches often take months to entirely clear up; they rarely become the seat of tuberculosis, but may terminate in chronic fibroid induration with dilated bronchi.

As regards treatment, the author has little faith in drugs. He summarizes it thus—nourishment, opium, alcohol, local applications. He has seen more harm than good from the administration of emetics to relieve the loaded bronchial tubes. The mortality of acute broncho-pneumonia is very high, and contrasts strongly with that of lobar pneumonia. The death-rate of the cases under treatment was forty per cent.; of the cases in which the disease was secondary, forty-six per cent.; and of those presumably primary, twenty-nine per cent. died.

ON THE ACTION OF ANTIPYRIN UPON THE TEMPERATURE AND TISSUE CHANGES IN CHILDREN DURING FEVER AND IN HEALTH.

After a résumé of the experience of others on the use of this drug, the author recounts his observations in eleven cases, namely, four of typhoid, one of tubercular meningitis, two of miliary tuberculosis, and four children in good health. The experiments appear to have been conducted with thoroughness and care. The dose given within twenty-four hours varied from fifteen grains to a child of two years old, to one hundred and five grains to a healthy child of seven years. The following were the results: Antipyrin lowered the temperature in all cases, but to a very slight degree in the healthy children. The amount of fall in the temperature did not always depend on the dose. After even the largest doses, the temperature did not remain at its lowest figure more than twenty hours. The greatest fall occurred about midnight, after which the temperature gradually rose. In healthy children, even large doses fail to lower the temperature to the same extent as in the feverish.

Young children can take large doses quite well for from one to two days.

In most of the cases the quantity of urine was diminished to the extent of nearly one-half; it was very concentrated, and the specific gravity was increased. The quantity of urea, uric acid, sodium chloride, phosphoric acid, and sulphuric acid was notably diminished during the use of antipyrin. Forty-eight hours after the last dose, the daily quantity of all these urinary constituents was greater than before the drug was given. The author feels some hesitation in recommending the use of antipyrin in fever cases, because, in spite of its undoubted antipyretic power, it could not safely be used for any length of time, if the remarkable retention of the products of oxidation which he observed is confirmed by further experiments.

NEW EXPLANATION OF THE PROGRESS OF MENSTRUATION.

The following are the propositions with which the writer concludes his part:

(1) The periodical flow of blood from the female genitals is not a consequence of the rupture of a follicle (which usually occurs at the same time), but of the degeneration of the uterine mucous membrane which has become hypertrophied before such rupture, and independently of it.

(2) This growth, the menstrual decidua, is caused by the imbedding in the unimpregnated condition of the last ovum furnished by the ovaries.

(3) If this imbedded ovum is impregnated, the menstrual decidua becomes that of pregnancy, but if the ovum remains unimpregnated, it degenerates as a consequence of the death of said ovum.

(4) Taking each menstruation for itself, the rupture of the follicle and the flow of blood stand in no other casual relation to each other than that possibly the causes and conditions which are operative at the occurrence of the hæmorrhage may, at the same time, have an effect in bringing about the rupture of a ripened follicle.

(5) The coincidence of the rupture of a follicle and the flow of blood is, therefore, no necessary one. Each can occur separately; a follicle can rupture without there being any menstrual decidua present, and this secondary consequence of the ovum which has previously made its appearance—namely, the menstrual flow—can occur without a new follicle rupturing at the same time.

(6) The periodicity of menstruation is determined by the extra-follicular strength of life of the imbedded and unimpregnated ovum; the variations from the general or individual periodicity depend upon the shortening or absence of such capac-

ity for life, either idiopathic or the results of intercurrent influences.

(7) The ovum which has been expelled, usually at the last menstruation, and is present ordinarily in the uterus (in abnormal cases elsewhere), is the one which is impregnated.

From these the following very practical conclusions can be drawn:

(8) Since the menstrual flow is neither a physiological function, nor the necessary accompaniment of such a function, but the direct consequence strengthened by innumerable repetitions of a process which is the result of our social conditions,—namely, the unimpregnation and death of the human ovum—therefore it has all the properties and results of other hæmorrhages which are always pathological.

(9) It increases and diminishes under like conditions with them.

(10) The flow of blood which is the necessary accompaniment of the menstrual decidua, is only to be regarded as harmless when it occurs per diapedesin. When per rhexin, it is under all circumstances unnecessary, and becomes injurious when it is felt and responded to by the entire organism as a loss.

(11) The amount of the injury corresponds to the proportion between the amount of the blood lost and the quantity (plus the quality) of blood which the body contains at the time.

(12) Under these circumstances the indication is for the greatest possible reduction in the amount of the menstrual flow, as of any other loss of blood.

(13) The means to be recommended are first and foremost rest in bed, and hot water injections.

(14) On the contrary, the voluntary cessation of the menses (idiopathic amenorrhœa) is under no circumstances to be regarded and treated as a disease; it is only a sign that a function (ovulation) which is not necessary to the life of the individual, from some cause or other (youth, age, pregnancy, lactation, debility), was not properly performed at the proper time, that is, about four weeks previously.

(15) Supported by this theory, and the observation of Lawson Tait as to the importance of the tubes for menstruation, it would be desirable to attempt to substitute for castration salpingotomy (partial resection of both tubes after previous ligation) in those cases where uterine dysmenorrhœa, menorrhagia, fibroids, and such uterine affections call for the anticipation of the menopause.

(16) Should it appear impossible after beginning the operation for castration in the above mentioned conditions to completely remove the ovaries, salpingotomy would be directly indicated.

THERAPEUTIC PROGRESS.

To REMOVE WARTS.—According to the statement of Dr. Dumm, castor-oil constantly applied for two to four or six weeks—that is, once a day—has not failed in any case of any size or long standing.

JABORANDI FOR SINGULTUS.—Pagenstecher reports a case of obstinate hiccough, which had resisted all ordinary remedies, cured by an infusion of jaborandi leaves. The spasm ceased as soon as profuse sweating occurred.

AN OINTMENT FOR USE IN ECZEMA.—E. Vidal suggests the following:

℞.	Oxide of zinc	ʒijss.
	White vaseline	ʒx.

Sig. Apply night and morning.

A SOLUTION FOR USE IN ECZEMA.—Auspitz is credited with the following formula:

℞.	Salicylic acid (dissolved in alcohol).	gr. xv.
	Traumaticine	ʒiijss to ʒv.

To be used after the acute stage has passed.

SANTONATE OF CALCIUM is preferred to santonin by E. Bombelon. It is a tasteless powder, almost insoluble in water, and to these properties the author attributes the facts that it is more efficient than santonin and less apt to be expelled by vomiting. It should be neutral.

MENTHOL IN THE TREATMENT OF URTICARIA.—*Union Medicale* for May 22, 1886, suggests the following remedy: Dissolve a small quantity of menthol in alcohol, and apply to the spots as a lotion. This preparation is said to be equally soothing in case of insect-stings.

THE MODE OF ACTION OF ANTIPYRIN.—Dr. Coppola, after excluding, one by one the causes which can effect a reduction of temperature in the animal organism, concludes that the antipyretic effect of this drug depends solely upon an increased dispersion of caloric, and not upon any central action.

A PASTE FOR USE IN ECZEMA.—Funk recommends the following:

℞.	Salicylic acid	ʒijss.
	Ichthyal	ʒv.
	Alcohol	ʒxx.

Sig. To be rubbed in thoroughly with a brush twice daily.

FUNCTIONAL DYSPEPSIA.—

℞. Tincture nux vomica	ʒij.
Saccharated pepsin	℥ss.
Dilute hydrochloric acid	ʒvj.
Syrup taraxacum	℥ij.

M. Sig. One teaspoonful in water after meals.

AN APPLICATION FOR BURNS.—De Bruyne recommends this formula:

℞. Lime water,	
Chloric ether, āā	♏ xlv.
Glycerine	℥v.

Sig. To be applied on compresses, as a substitute for carron-oil.

ERYSIPELAS.—

℞. Tincture aconite root	ʒss.
Hydrochlorate pilocarpine	gr. j.
Sulphate morphia	gr. ss.
Water	℥jss.

M. Sig. One teaspoonful every three hours.

INFLAMED NIPPLES.—The following ointment has been found useful:

℞. Nitrate of lead ointment	gr. xx.
Muriate of cocaine	gr. ij.
Tincture benzoin (compound)	ʒss.

M. Sig. Apply locally.

A GOOD formula for summer diarrhœa:

℞. Tincture rheubarb	℥j.
Aromatic syrup rheubarb	℥j.
Fluid extract ginger	℥j.
Tincture opium	ʒiv.
Tincture cinnamon	ʒiv.

M. For adults one teaspoonful every hour for three hours.

DR. JANEWAY'S LAXATIVE PILL.—

℞. Extract belladonna,	
Extract nux vomica, āā	gr. iij.
Resin podophyllin	gr. vj.
Aloes	gr. xij.

M. ft. Mass and divide into twelve pills. Sig. Take one on retiring.

FOR RHUS POISONING.—A writer to the *Medical and Surgical Reporter* says: The best remedy I have found is the following:

℞. Pulverized borax	ʒij.
Carbolic acid	ʒj.
Sulphate morphia	grs. x.
Pulverized acacia	ʒiv.
Water, q. s. ad.,	℥viij.

M. Agitate till solution is formed. Use with camel's-hair brush.

Fever Mixture in Typhoid.—Dr. F. Peyre Porcher, of Charleston, South Carolina, prescribes for internal use the following fever mixture:

℞.	Acetate potassium	℥j.
	Liquor acetate ammonia	℥j.
	Spirits nitric ether	℥ss.
	Tincture aconite	ʒss.
	Water, ad	℥iv.

Sig. A dessertspoonful in a little water every two hours. so long as the fever continues.

The Action of Cascara Sagrada upon the Secretions of the Alimentary Tract.—Dr. Ischelzon, after a series of experimental studies, reaches the following conclusions: (1) Cascara sagrada is useless when prompt catharsis is desired. (2) Its purgative action is only obtained when the drug is introduced into the stomach; it has no action when injected beneath the skin or into the vessels, or when administered per rectum. (3) It does not increase the flow of saliva. (4) It causes an increased secretion of the gastric juice, the bile, and the pancreatic juice.

Iodide of Potassium in the Treatment of Diphtheria.—C. L. Stepp assuming that iodide of potassium, given in large doses frequently repeated, causes the fluids of the body to be permeated with iodine, and thus made unfit for the development of the micro-organisms of diphtheria, has treated a number of grave cases with the drug, so administered, and reports rapid cures. A child between one year and three years old should take every hour a soup-spoonful of a solution containing from two to four parts of the salt in a hundred parts of water. Older children will tolerate a solution of the strength of from four to ten per cent. Several of the little patients whose histories are given took one hundred and fifty, three hundred, and even seven hundred and fifty grains of iodide during the course of the disease, without suffering from any toxical effects.

Rhus Poisoning.—Dr. J. B. Johnson says: The treatment which I always adopt, and have never known to fail, is as follows:

℞.	Hyposulphite of soda	℥j.
	Aqua distilate	℥viij.
	Carbolic acid	ʒjss.
	Glycerine	℥ss.

M. Sig. Shake well, and use as a wash three or four times a day, or as often as necessary.

At the same time that I order the wash I prescribe for internal use:

℞.	Iodide potassium	ʒij.
	Aqua distilate	℥vij.
	Syrup	℥j.

M. Sig. Dose: a tablespoonful four times a day (after eating and at bed-time).

SPECIAL NOTICES.

Prolapsus.—I have used acid mannate, and can say that its action in prolapsus ani was very satisfactory. When other remedies, which were mild cathartics, failed and produced much pain, the acid mannate proved to be a good remedy, and is all you claim it to be.—T. N. Clark, M. D., Reagan, Texas.

S. P. **Yeomans**, M. D., Charles City, Iowa, says: I have given celerina a trial in several cases of general nervous derangement of long standing, and which had resisted every form of medication, with very satisfactory results. I think it a valuable remedy, in that class of nondescript chronic female cases that so frequently occur, and which are a source of so much trouble to every practitioner.

Summer Diarrhœa.—In the large class of summer diarrhœas of children and adults, with griping in the bowels and flatulence, the use of listerine, in doses varying from ten drops to a teaspoonful (with or without water), has a most salutary and pleasing effect. It can be administered at short intervals after eating, as soon as regurgitation, distension or acidity occurs. Its action in arresting excessive fermentation is prompt, besides it exercises a decided sedative influence on the mucous membranes of the stomach. The thymol, menthol, and boracic acid which, with the quota of alcohol necessary to their proper admixture, from the principal elements of listerine, lend to this compound a special value in this class of cases.—*New York Medical Journal.*

Not long since I had brought to me a child of six months, suffering from the following symptoms: Constipation, at times irregular action of bowels, regurgitation of food and an asthmatic cough. Its mouth was full of thrush sores, and its appearance one of poor nourishment. It had been given a number of infant's foods in vain, one of which I prescribed myself. By means of mild medication, directed towards the cough and stomach, something was accomplised. Finally I gave "Carnrick's soluble food," and had the satisfaction of having it retained, and at last accounts the child was doing nicely. I am inclined to think this food is worthy of attention on the part of the profession. It recommends itself in that it contains caseine, rendered soluble by pancreatine, starch converted into dextrine and maltose. Hence it requires but little preparation, and that is so simple, mistakes cannot occur. It requires no addition of milk. It has the advantages and none of the disadvantages of the many foods now in the market, and forms a nearly physiological substitute for mother's milk.—C. F. Denny, M. D., in the *Northwestern Lancet* for June.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. SEPTEMBER, 1886. NUMBER IX.

ORIGINAL ARTICLES.

FOREIGN BODIES IN, AND INJURIES TO, THE EYEBALL.*

BY FLEMMING CARROW, M. D., BAY CITY, MICHIGAN.
Member Société d'Anthropologie de Paris, Member Sociedade Sciencias Medicas de Lisboa, Portugal, etc.

Although the eye is so well protected from injury anatomically, yet a large proportion of the cases which the oculist is called upon to treat are the direct result of foreign bodies, which, finding entrance between the lids, or through them, interfere with the integrity of the ball. It is scarcely surprising that this should be the case, when we consider that the eyes are open about sixteen hours out of the twenty-four, and constantly exposed to vapors and small flying particles in the atmosphere. A passage on the railroad train subjects the eye to flying cinders; a walk in the street, and particles of dust fix themselves on the sensitive cornea or conjunctiva; while from the various business pursuits which men follow, this organ is laid open to injury constantly. Thus both while we take our pleasure, and while we follow our business, we are liable to injure the organ, which, of all others, is most useful; and it is necessary that we understand the best means of relieving a condition most painful and dangerous, so that we may leave the eye with a useful degree of sight.

There was a time, when a foreign body having been introduced into the eye, nothing but enucleation or loss of its fellow from sympathetic ophthalmia was the outcome. This time, however, has happily passed, and conservative eye surgery is the rule, and not to pass sentence of enucleation upon an eye, even though there be no hope of retaining sight, and long weeks of assiduous work be necessary to save the globe, for an eyeball blind is more satisfactory than an artificial eye, even though it be ever so well adjusted.

---

* A Paper read before the Michigan State Medical Society, June 9, 1886.

Small foreign bodies, when introduced into the eye, generally take one of two positions: they will adhere to the cornea, or be carried by the combined motions of the ball and the lid underneath the upper lid. They seldom adhere to the lower lid, for the reason that they are washed out by the large quantity of tears which any irritation of this kind calls to the eye.

Something foreign touches the conjunctiva or cornea, and instinctively the fingers are carried to the eye, which is rubbed, thus fixing the substance more firmly. This induces lachrymation and more or less redness, and the patient's own efforts and those of some officious friend failing to dislodge it, the services of the physician are asked. A close inspection of the cornea and eyeball is sometimes necessary to discover the foreign body. If it be very minute, oblique illumination is necessary to find it, using a lens of two or three inches focus. The lids having been first widely separated, the patient is directed to move the eye in all directions, and a minute search is made of the entire ball. If it be very small, of a dark color, and situated over the pupil, you must see it obliquely, as in this way you get the iris for a background, instead of the black pupil; if it be light or transparent, as glass, it will require very close looking to find it. Having discovered nothing on the surface of the cornea, the surgeon should next evert the lids, and search their surfaces for it. To evert the upper lid, those experienced use simply the thumb and fingers, whilst with others it is necessary to grasp the lashes, pull the lid downwards and upwards, and placing the probe on its upward surface, turn the lid back over it. It is a delicate maneuver, and requires some little experience to do it easily and skillfully. Should you now discover the body, it is easily removed with a soft piece of linen on the end of an applicator. Failing to find it, however, it is necessary to press out the folds in the conjunctival surface, and hidden in them you will probably discover the offending body. Generally, removal of the primary trouble entirely removes the pain. If the substance has penetrated the cornea or conjunctiva there is of course more reaction, and inflammation accompanied by spasm of the lids, photophobia, etc., and in this case the local anæsthetic effect of a four per cent. solution of cocaine makes the examination and removal of the body comparatively easy. If, however, the foreign body is metallic, it may undergo chemical changes which oxidize it, and a grayish ring is made upon the cornea immediately surrounding it: this can be removed, together with the foreign body, by a delicate and experienced hand, without injury to the corneal tissue. For this purpose a blunt spud is the best instrument. If it appears that the foreign body is almost through the cornea, a touch with forceps or spud might drive it entirely through. Now the manipulation becomes more delicate, and it is necessary to bring the eye thoroughly under the influence of cocaine to introduce the spring speculum, and fix the eye with fixation forceps, that all movements may be prevented. A lance-shaped knife must be entered to one side of the foreign body, and passed into the interior chamber till well behind it. Then by lowering the handle, the blade of the instrument is brought in contact with the posterior surface of the cornea immediately behind the foreign substance, which is thereby fixed, and its entrance into the anterior chamber prevented. Now, with the spud or a needle it is picked out. This renders the services of an assistant necessary, to hold the fixation forceps. If the aqueous humor is lost before the body is removed, you must wait until it reaccumulates, that the iris may not be injured during your manipulations. If the foreign body has found entrance into the anterior chamber, the wound in the cornea, let it be ever so small, is large enough to allow the escape of the aqueous humor, and the iris is brought into contact with the cornea and will probably prolapse through the wound.

If the foreign body lodge in the iris, no harm may result even if it is not removed, although the safe plan would be to perform iridectomy, removing that part of the iris which contains the foreign substance.

Prolapse of the iris through the wound commonly takes place, in which case the protruding portion should be cut off—if after using atropine or eserine it does not recede—taking care to grasp it lengthwise the wound. The result will be an anterior synechia, and the shape of the pupil will be changed. Wounds near the center of the cornea, with prolapse, are least dangerous; but if near the periphery, the danger is increased, as here traction is greatest. A penetrating wound of the cornea, which involves prolapse of the iris or injury to it in any way, with rupture of the capsule of the lens, is dangerous, because the aqueous humor is admitted to the lens, and being absorbed, a traumatic cataract is produced. The prolapsed iris should be excised, and the eye watched, and kept under the influence of atropia. If the lens swells and presses forward, it should be removed by the linear method. Should there be displacement of the lens from the force of the blow which injures the cornea, it is better to await developments than to attempt any operative procedure. If the eyeball is ruptured from the force of the blow, without penetration of the cornea, the rupture usually takes place in the sclerotic coat, and generally parallel to the base of the cornea. Such a rupture may occur without injury to the more yielding conjunctiva, and the lens will escape and lodge under the conjunctival covering. The presence of the lens is easily detected, and it is as easily removed by an incision through the conjunctiva. If no other part of the eye has been injured, recovery will take place with a very useful degree of sight, after a strong convex glass has been adjusted, the eye remaining in about the same condition as after the usual cataract operation.

A rupture of this kind, and with this result, is not very often followed with sympathetic trouble.

As to penetrating wounds of the eye, the most important question to decide is: Is the foreign body within the eyeball? If the wound is very large and has been followed by the loss of the entire contents of the globe, it becomes a very simple matter to pronounce an opinion, as well as to decide what is to be done. But if the foreign body be small and sharp, it may penetrate the tissues of the globe, and scarcely a wound be left large enough to be seen. A small body flying very rapidly penetrates the eye and occasions so little pain that even the patient will declare nothing has entered the globe, because he feels no sensation of pain; but we know that such a body may lodge very deeply in the eye and not occasion as much pain as a larger body moving more slowly, which may lodge only on the surface of the cornea, or on the conjunctiva; hence a very thorough ophthalmoscopic examination should be made. In conducting such an examination the wound should first be found, then it is necessary to decide whether the body has passed through the eye, has rebounded, is lodged in the tunics themselves, or has penetrated them, and is resting on the humors of the globe. In directing attention to the cornea as being the part most frequently wounded, from its prominent and exposed position, it must be borne in mind that a very small wound is sometimes very difficult to find. Its polished surface acts as a reflector, and necessitates light being thrown on it at different angles, to discover an abraded spot or a puncture. If oblique illumination is used, the wound can scarcely escape detection. Remembering that we may have a wound of the cornea, and yet the substance which produced it may have rebounded, several considerations should guide us in deciding the very important question: Has the body penetrated, and is it still in the eye? If there be blood in the anterior chamber, without the possibility of the patient having received a blow sufficiently hard to produce rupture of any of the intraocular vessels, or if the iris has been drawn into the wound by the sudden escape of the aqueous humor, we know the body has penetrated. Again, if the iris is brought forward, and touches the cornea, even though there may be no prolapse, or if a small hole is seen in the iris of the same size as the corneal wound, and corresponding to the position of the wound in the cornea, or if with the wound in the cornea a cataract is forming rapidly, we have evidence that the foreign body is in the eye, or has passed through it. If, however, as it may sometimes happen, none of these evidences present themselves, there is left the evidence the ophthalmoscope may give while the pupil is widely dilated with atropia. You will now discover either blood in the vitreous humor, or a milky way through it, or see the foreign body itself, which is of course conclusive evidence, but it may rest immediately behind the iris, and yet escape detection, particularly if several hours have elapsed since the receipt of the injury, and the external wound has closed. In this case we have simply to await developments, for undoubtedly something will happen to assist the diagnosis. The sight may be lost at once, or very little altered from normal. The tension of the globe may not be altered, because the body may have been so minute, and the rupture in the eye tunics so small that neither the aqueous nor vitreous humor has escaped. If the wound be in the sclerotic coat, a small ecchymotic spot will denote its position, and if it be simply an incised wound, and the foreign body which made it be not within the eye, it will require a simple cold compress and a bandage. If the wound be large, and manipulating its edges will not cause the vitreous humor to escape, a fine suture or two will be best; but this is delicate work. The question again comes up for decision: Has the body entered the globe, and is it still there? Only the ophthalmoscope will clear this point; bearing in mind that a wound in the iris or blood in the anterior chamber is strong presumptive evidence that the body is in the eye. If, then, the wound in the conjunctiva and sclerotic coat be large, ordinarily the humors of the eye will have been lost, and collapse of the globe will result. Enucleation is the only remedy left by which to escape sympathetic trouble of the sound eye, as well as leave a suitable stump for an artificial shell. After eneucleation has been performed, the foreign body should be searched for, and if not found within the ruptured eye tunics, a closer search of the tissues remaining within the orbit will disclose it driven sometimes into the bony orbital walls. Of course it will be removed. Small bird-shot passing through the eye, and destroying sight at once, may remain in the orbit without producing further trouble, although, as Williams observes, they may produce an aneurism of the ophthalmic artery. Wounds of the optic nerve will cause immediate loss of sight. A foreign body which has penetrated the eyeball, and remains within it, is dangerous according to its size, its condition, and its position. A small shot, for instance, if in the vitreous humor, may become encysted, and do no harm. If in the ciliary region, there will almost certainly be further trouble, and it will place the sound eye in greater jeopardy. If in the lens, no further trouble after a traumatic cataract is formed need usually be feared.

While considering the best plan of treatment of wounds of the eyeball, we should bear in mind that the utmost conservatism should be practiced, without placing the sound eye in jeopardy of sympathetic ophthalmia. The patient's condition in life should be considered, means of obtaining a livelihood, the distance at which he lives from competent advice, sex, etc. Yet we must remember that a foreign body in the eye is a most serious thing, lying quiescent for many years and then setting up a sympathetic trouble which may produce total blindness so assiduously that all hope of retaining sight is lost before a surgeon can be reached. These considerations will make you most careful and guarded, both in giving advice and in operating. A wound of the conjunctiva, even though it be a very extensive tear, is easily treated with soothing collyria and a compress bandage, taking care that a symblephoron may not result, as often happens after an extensive loss of the conjunctiva. Only the very mildest applications should be used in the eye, such as borax or boracic acid; stronger remedies, such as solutions of nitrate of silver, will produce very troublesome complications, the cicatrices formed leading to epiphora, entropium, and displacements of the lids, causing endless trouble in the lachrymal apparatus. If the cornea be the seat of the wound, other troubles are produced, demanding even more careful treatment. The foreign body producing the wound must first be removed, and, if it has not perforated, a bandage and cold compress will answer; but if, on the other hand, it has opened the anterior chamber, the aqueous humor will suddenly be lost, and there will be a hernia of the iris. If seen at once, the iris can be replaced with a spatula. But if some hours have elapsed since the receipt of the injury, plastic exudation takes place, and the iris is imprisoned between the lips of the wound. You have now to excise the prolapsed portion of iris, and a four per cent. solution of cocaine will place the eye in a condition in which your manipulations will not be felt. After the removal of the prolapse, eserine instillations with compresses is the treatment. · But it is necessary for the future of the eye that every particle of iris be removed from the incision; if not only the cornea and iris be implicated, but there is also a wound of the lens, the danger is increased, as from the rapid swelling of the lens substance so much pressure is made upon the iris that the intraocular tension is increased, and perhaps total loss of sight from panophthalmitis will result. In such a case, remove the iris from the wound, and push atropine instillations, that the pupil may be as widely dilated as possible, to prevent iritis. Should the lens protrude through the rent in its capsule, it is best to remove it at once by a linear incision, or by enlarging the wound in the cornea. This will prevent any danger from sympathetic ophthalmia; and while but little or no sight is left, the eyeball is retained, which is certainly better than an artificial shell. Should the foreign body have gone still further, and is resting within the posterior chamber, one of two courses must be followed. Either immediate enucleation, or the removal of the body by some one of the methods mentioned below; sight is now lost, and we have to concern ourselves for the safety of the remaining eye. It becomes an important matter to decide between immediate enucleation and attempting to save the ball, when the matter of saving sight to the patient is impossible. If the patient can be kept under close observation, it is better to use every endeavor to save the ball. The patient presents himself with a recent wound of the cornea, prolapse of the iris, penetration of the lens, and we are convinced that a foreign body lies in the posterior chamber. There will be prolapse of the vitreous humor. This, usually with the prolapsed iris, should be snipped off close to the wound, and you have a case in which you are justified in using some one of the different forms of magnets which have been used so successfully in dealing with metallic foreign bodies in the eye. Dr. Grüning has constructed a magnet, the point of which will lift a weight of two hundred and twenty grains. This instrument, introduced into the eye, will attract a piece of metal in the vitreous humor weighing forty centigrammes a distance of four to six millimetres. The electro-magnet of Bradford is also an excellent instrument, sustaining a much heavier weight than Grüning's, and attracting a foreign body in the eye a much farther distance.

There is another injury from which the eye can suffer total blindness without either rupture or wound of the tunics of the ball, namely, concussion. The force of a blow received may cause displacement of the lens, and it is necessary for the future of the eye, as well as that of its fellow, that we ascertain the position of the luxated lens, and adopt the suitable measure. If it is luxated into the anterior chamber, it should be extracted at once, through a linear incision. If there is but partial displacement, and the eye suffers no other injury, usually no harm is done beyond the dimness of vision resulting from a pupil part of which is backed by lens substance and part without any lens at all, refraction being hypermetropia in one part of the eye, and myopia in another. Dislocation into the vitreous humor is also usually unattended by danger; but if there be symptoms of irritation, the lens should be extracted, if possible, with a scoop, through a peripheral incision. As sympathetic ophthalmia is the *bete noir* of the oculist after the receipt of injuries to the eye, it seems that we would not be departing from our subject should we conclude this paper with a few remarks on this most interesting subject.

Williams's definition is an excellent one. He says: "If while one eye is suffering from an injury, or an inflammation, the other is attacked by disease not fairly attributable to any other cause, this is sympathetic ophthalmia." Traumatic inflammation of one eye is the most frequent cause of this disease, and the seat of the injury in the eye which predisposes to this trouble most frequently, is the ciliary region, which is bountifully supplied with blood-vessels and nerves. Alt claims that seventy-five per cent. of sympathetic diseases are to be referred to some injury or disease in the ciliary body of the offending eye. If this dangerous region is wounded, and the foreign body remains in the eye, the danger of sympathetic trouble is increased; even if a foreign body remains encysted in the ciliary region for many years, it is still liable to give rise to an inflammation which will destroy the well eye. In fact, it may be generally stated that any operation accompanied by considerable traction on the ciliary body may cause a destructive sympathetic ophthalmia. Amongst others causes may be mentioned scars which entangle the ciliary body, caused by penetrating wounds, rupture of the globe through the ciliary region, perforating wounds of the lens, displacement of the lens, operation for cataract, intraocular cysticerci, foreign bodies in the eye, tumors of the choroid, and the wearing of an artificial eye after it has become roughened by long use. The method by which the disease extends from one eye to the other is generally believed to be direct, and not by reflex or excito-motor influence. The route by which it travels is the ciliary nerve, and the optic nerve and its sheath, as proved by the presence of neuro-retinitis and optic neuritis in enucleated eyes. The interval which may elapse between the receipt of the injury and the beginning of sympathetic trouble varies from two weeks to two months, but this period may be extended to many years. The treatment of this condition is of great importance, and while enucleation must be resorted to in most instances, judicious treatment of the sick eye before the appearance of the trouble in the well one may save the patient one eye. Eneucleation does not invariably protect the sound eye, but it is almost certain to do so if performed at a time before any of the symptoms of sympathetic ophthalmia are started; at any rate, it is a much safer procedure than the more recent operation of evisceration. To insure the best results, enucleation must be performed early, or at the very beginning of the inflammatory stage. The operation of optico-ciliary neurectomy is now under trial, and by it we save the eye, although it has been found that after this operation the ball undergoes considerable atrophy. It is suitable more particularly in those cases where there is no foreign body in the eye, and where we have reason to anticipate but little reaction and hæmorrhage; but if it failed to remove the alarming symptoms within forty-eight hours, enucleation must be looked upon as the *dernier resort.*

OBSERVATIONS ON THE ADMINISTRATION OF CHLOROFORM.*

BY T. J. SULLIVAN, M. D., ANN ARBOR, MICHIGAN.

In response to a request to read a paper at this meeting, I have chosen the "Administration of Chloroform," a subject which I trust will interest the association. My aim throughout has been to write briefly, and I hope state intelligently, the methods of administering chloroform in use at the Michigan State Hospital, and in my private practice; to show the class of patients to whom we administer it; when an anæsthetic is required; to point out the dangers encountered in its administration; and, to indicate the best manner of meeting dangerous signs when present.

The preparation of a patient for the administration of chloroform, should receive proper attention. The stomach should be empty, all tight clothing about the thorax and abdomen loosened, and artificial teeth removed. The patient should be placed in the recumbent position, with head slightly elevated, and so placed that the chin will not press upon the trachea, and the arms placed at the side, thus affording every means for easy and full respiration. The meal taken when in anticipation of the administration of an anæsthetic should be light and liquid in character; and, abstinence is requisite from five to six hours previous to administration. It is objectionable for a patient to abstain from ten to twelve hours, as it may lead to weakness and thus produce syncope. With a full stomach the administration of chloroform frequently produces shallow respiration, a dusky countenance, weak or irregular pulse, which if allowed to pass unnoticed, will, if the administration be continued, terminate in death; and when vomiting occurs, which is usual, the food may regurgitate and pass into the trachea, and asphyxiate the patient. Stimulants are unnecessary except in old and debilitated people, as they cause undue excitement, and are apt to produce vomiting while the patient is under the influence of the anæsthetic. It is a well settled fact, that chloroform vapor should always be well diluted with air, as vapor when inhaled in a condensed form enters the blood rapidly, and may cause immediate arrest of the heart's action. In 1864 a committee of the Medical and Surgical Society of London reported that four and one-half per cent. of vapor is the maximum amount which a patient can inhale with safety. The administration is best carried out by giving the chloroform, drop by drop, distributed over a loose cloth, through which the air can pass freely. To accomplish this a two-ounce bottle with two tubes so arranged as to furnish a continuous dropping is all that is required. A rectangular wire frame covered with one thickness of surgeon's patent lint forms one of the simplest and best inhalers. A physician armed with these two articles and an ordinary dressing forceps to pull out the tongue, has all the appliances necessary. The paper or tin cone and all other forms of inhalers which interfere with the free passage of air, are to be condemned as dangerous. It is best to commence by placing the inhaler over the patient's face, entirely free from the anæsthetic, and after one or two respirations begin the administration by dropping the chloroform slowly on the inhaler increasing the frequency in the course of a half minute or so. At the beginning of the administration it is unwise to hold or strap a patient to the table, as it may cause fright; but by a few encouraging words direct him to breath naturally and easily.

---

*A paper read before the Michigan State Medical Society, June 9, 1886.

By holding the inhaler with the left hand, and placing the fingers on the facial artery, the pulse and cerebral circulations, are at all times under direct observation. The free entrance and exit of air from the lungs, a clear countenance, a good pulse and cerebral circulation are indexes which, if correctly interpreted when modified, will always indicate approaching danger. When the stage of excitement occurs, the patient should be held and the anæsthetic given more freely. There is some danger at this stage and the more quickly a patient is carried through to complete anæsthesia the better. A patient is said to be under the influence of an anæsthetic when a touch of the finger on the ocular conjunctiva produces no reflex action. In some sensitive patients who experience excessive pain, the anæsthetic must be given to a much greater extent to complete insensibility. No operation, not even the extraction of a tooth, should ever be undertaken when chloroform is given until the patient is thoroughly under its influence as one partially sensitive is in greater danger to suffer shock. It does not add any to a patient's risks to be thoroughly under the influence of an anæsthetic. I have never in my experience met with one patient to whom it was impossible to safely administer chloroform. The dangers which are likely to occur in the administration of chloroform, I have from observation found occuring in the following order: (1) Asphyxia; (2) coma; (3) syncope. You will observe that this order is the very opposite to the one given by the books. When a student, I was taught that the most frequent cause of death from chloroform was syncope, and the best means of meeting this danger was to invert the patient and cause the blood to return to the brain. I must say, that with an experience extending over a period of six years, that danger has been noticed to occur not more than three or four times.

Asphyxia is produced by, first, the dropping, back of the tongue and spasmodic closure of the larynx; second, vomited food, or mucus which lodges in the larynx; third, blood either vomited, or suddenly rushing back from the mouth, as after the operation for removal of the tongue, and severe operations in the mouth. Dropping back of the tongue and spasmodic closure of the larynx, occur more frequently than all other accidents combined, and I believe that if the tongue were more carefully watched the deaths occuring during the administration of chloroform would be far less frequent. There are two periods during the administration when this is apt to take place. First, when the patient has just passed fully under the influence of the anæsthetic; and secondly, just before the effect of the anæsthetic has passed off. At these periods the respirations are slow and shallow, and the muscles of the tongue relaxed, allowing it to quietly drop back and shut off the entrance of air. The diaphragm and the muscles of the thorax and abdomen continue to act, although air does not enter the lungs, and the heart may have ceased to beat before the administrator is aware of a fatal result.

The objects in the treatment of accidents occuring during the administration of chloroform, are to maintain the respiration and sustain the heart's action. In the great majority of cases dangerous signs are produced by some interference with the free passage of air in and out from the lungs, and as I have already indicated the tongue dropping back is the most frequent cause. I am positive that the best thing to do under these circumstances is to grasp the tongue with a pair of dressing forceps and draw it out of the mouth very forcibly. Merely lifting the tongue out is not enough: it is necessary to use some force in order to produce a decided reflex action. If the forceps are not at hand, I pass my index finger into the mouth, lift up the epiglottis and jerk the tongue out, and thus stimulate a decided reflex action. If this does not cause the patient to breathe, there is no time to be lost, and Howard's method of producing artificial respiration must be resorted to at once. I can best illustrate the method resorted to in resuscitating a patient when in danger of death from asplyxia by giving the history of the following two cases.

Mr. L. J., aged seventy, had been afflicted with hernia for twenty years, and after suffering with strangulation for many hours, called in Professor Maclean. He was placed in the position already indicated for the administration of an anæsthetic and an upper and lower set of teeth removed, and chloroform administered. All went well until he was passing out from the anæsthetic, when in an unguarded moment while my attention was attracted to the hernia, the tongue quietly dropped back and completely shut off respiration. When this condition was noticed he had ceased breathing, the face was very blue, the pulse imperceptible at the wrist, and we may say the patient was in the throes of death. Time now was of vital importance, —a single mistake or the least delay caused by any flurry of excitement, would certainly have proved a fatal consequence.

Assistance must be immediately rendered, and acting on the indications which I have above referred to, I instantly placed a hand on each side of the chest, and sprang into a kneeling position astride the patient, and in rapid succession compressed and relaxed the thorax, then plunging my finger into the mouth I lifted up the epiglottis, jerked the tongue out with considerable force and had it held in that position, thus stimulating an effort at respiration which was supplemented by rapid and thorough artificial respiration. I was thus enabled to cause a liberal amount of air to enter the lungs. It was a long time before natural respiration was established but by this simple, yet effective means always in command, a fatal result was avoided.

The next case will illustrate how blood may cause asphyxia; the means resorted to will show the effect of prompt treatment.

Dwight C., aged fifty-three, was admitted to the hospital October 7, 1883, and operated on the 24th of October for the entire removal of the tongue for epithelioma. He passed under the influence of the anæsthetic very nicely, and continued to breathe very well up to the time when the tongue was removed, when a sudden rush of blood blocked up the larynx. The bleeding vessels were secured, but the quantity of blood in the larynx was so great that all efforts at respiration were futile and in a remarkably short time asphyxia was well marked. Although the blood clots were rapidly removed, by means of sponges and forceps, it was impossible for the patient to breathe owing to the fact that blood had passed into the trachea. In this case, as in the one previously cited, without a moment's delay, I sprang on the table and knelt astride the patient, carrying on artificial respiration, at the rate of twenty or thirty per minute. It was some time before natural respiration was established. The patient was soon fully restored and made a rapid recovery from the operation.

I do not advise, neither is it safe to conduct, artificial respiration as slowly as we are directed by many authors. If we were to conduct artificial respiration in case of opium poison, ten or twelve movements per minute are all that are required, but in cases of asphyxia, occurring during the administration of chloroform, the patient is in much greater danger, and it requires more active stimulations to restore him to natural breathing. The efforts at artificial respiration should not be discontinued in two or three minutes, if the patient is not resuscitated, but must be continued for an hour or more.

Another case will show how fasting too long may lead to dangerous syncope.

William A., aged twenty-two, was placed under the influence of chloroform for the operation of circumcision at 4 P. M., October, 1885. Through some misunderstanding he had practically fasted since the evening previous, having taken but a cup of coffee and a piece of bread for breakfast. He passed under the influence very nicely, and continued to breathe naturally up to the time of inserting the sutures, when the pulse became imperceptible and the face very pale, respiration slow and shallow, and the tongue in no way interfering with the free passage of air. Recognizing the condition, the head was dropped to one side and held down, this favoring a return of blood to the brain. Almost instantly the color returned, *to the face*, the pulse improved, and the dangerous signs had passed off.

An electric battery is so uncertain in its action, and when it is used may be applied so strong that it will suddenly paralyze an already overburdened heart, that I would not recommend its use in this class of cases.

The administration of chloroform in cases of infants and children requires separate consideration. The rapidity with which its influence passes off makes it decidedly preferable as an anæsthetic for them. I have administered chloroform to complete anæsthesia, preparatory to passing a catheter to an infant one day old, and with the most satisfactory results. The best method of placing an infant under the influence of chloroform is to fold a napkin once or twice and drop from twelve to fifteen drops of the anæsthetic on it, and then place it over the face. The infant immediately holds its breath, and continues to do so as long as possible, but will always take in a breath when the supply of oxygen in the lungs is exhausted. In my experience I have noticed that an infant will always hold its breath, and often until the face is blue, but I have never yet encountered any dangerous results from this.

If the towel is slightly lifted from the face of the little patient, it will instinctively and instantly take a breath, which has but a small amount of vapor, producing but a slight effect, which rapidly passes off. By lifting the towel in this way I have known physicians to fail at the end of half an hour to anæsthetize a baby preparatory to an operation for hair-lip, and then give up in despair, and hold the patient without an anæsthetic on the table through the operation. This is a cruel error to inflict on a little babe, as no danger will ever result if the towel is held close to the face when an inhalation or two causes this instinctive resistance to pass off. Squibb's chloroform is most frequently used although Eberbach & Son, of Ann Arbor, have prepared an article that is equally trustworthy.

So far as I have been able to ascertain there has never been a single death from chloroform in the Michigan State Hospital or in the private practice of any one connected with the medical department of the University of Michigan.

Observations made at the clinic on one hundred patients during the years 1881 and 1882 furnished the following facts: Largest amount of chloroform used in one case, two ounces; smallest amount of chloroform used in one case, one-half drachm —average amount, four and one-half drachms.

Observations made at the clinic on fifty-seven patients during the years 1882 and 1883, furnish the following facts: Largest amount of chloroform used in any case, three ounces; smallest amount of chloroform used in any case, one drachm—average amount, five and ninety-six one-hundredths drachms. Oldest patient, sixty-four years; youngest patient, eleven months—average age, twenty-eight years. Shortest time to go under influence, two minutes; longest time to go under influence, six and one-half minutes.

Observations made at the clinic during the years 1884 and 1885: Largest amount of chloroform used in any case, fifteen drachms; smallest amount used in any case, one and one-half drachms—average amount, four drachms. Oldest patient, seventy-four years; youngest patient, eight weeks—average age, exclusive of those under one year, twenty-two years. Longest time to go under influence, six minutes; shortest time to go under influence, one-half minute—average time, two and six-tenths minutes.

CLINICAL LECTURES.

REMARKS ON THE REMOVAL OF FOREIGN BODIES FROM THE EXTERNAL AUDITORY CANAL.

BY GEORGE A. HENDRICKS, M. D.,
Instructor in Anatomy in the University of Michigan.

REPORTED BY WILMOT F. MILLER, ANN ARBOR, MICHIGAN.

I feel it my duty after finishing the anatomy of these organs of special sense, to drop some suggestions and instructions regarding certain precautions in the manipulation of these delicate regions in the event of accident, and particularly in the introduction of foreign bodies into the external ear. From the extreme fondness which children have for colored beads, bits of glass, smooth and shining seeds and pebbles, they are always in possession of a number of these attractive objects; and the child finds pleasure and amusement by rubbing its face with them and seems to gratify its curiosity and inquisitiveness by concealing them in the various external passages of the body—the mouth, the nose, the genital organs, and particularly the ears are made hiding places for these treasures. Or to imitate their older brother or companion in their attempt to execute the trick, when they pretend to place the object in one ear and to bring it out of the other, or out of the nose, the foreign body is pushed into the canal.

If its presence does not excite immediate pain or early subsequent inflammation, the foreign body may remain in the ear for an indefinite period without being discovered, or resulting in any harm. A case is on record where a glass bead had remained sixty years in the ear without any inconvenience or harm and unknown to the individual, and was removed with a mass of hardened wax. Glass beads and inorganic objects of like character do not generally excite an inflammation, and if undisturbed, may do no harm. But organic bodies will sooner or later soften, and become a source of irritation, inflammation, suppuration, and destruction of surrounding tissues.

Thus we see that a certain class of foreign bodies can remain in the ear without resulting in any harm. But if attempts are made at their removal by excited parents or sympathizing friends, much harm and permanent damage may be done. These vain efforts are made with crooked wires, with needles and improvised probes, and usually result in scratching and lacerating the canal wall, and in forcing the body deeper and deeper into the cavity. The family physician is now called, or what is more frequent, the child is carried or dragged to his office. The little patient is frantic and screaming from fright and pain, and the parents excited and uncontrolable. Under these circumstances what is your first duty? It is not to rush to the instrument drawer and produce various probes and forceps to strike deeper consternation into the minds of all interested. Sit quietly and by well directed questions and calm attention, quiet the mother, and sooth the little patient, and if possible gain its confidence.

You have obtained some account of what has been done, and have been made acquainted with the circumstances; but these statements are not to be accepted as facts. You have no positive knowledge that there is a foreign body in the ear. You have not seen it, and no attempt at removal should be made until the object is seen, and its form, size, nature and character are determined. Your second duty is to examine the ear and to satisfy yourself on these points. If the foreign body has been violently introduced or in excited efforts to remove it, the ear has been torn and lacerated, causing great pain and nervousness, it may be necessary to make an application of a five or ten per cent. solution of the muriate of cocaine, before any examination will be permitted, and in extreme cases ether or chloroform must be administered.

To make a satisfactory examination the forehead mirror and aural specula are necessary, but in the event that they are not possessed (and it is to be greatly regretted that many general practitioners do not provide themselves with these and other valuable aids), a common hand mirror will be found of great service. Reflected artificial light is the best, but if day light is used that coming through an unshaded north window will be found the most efficient. When direct light must be used, the sun rays should fall directly upon the ear, but such light will not be found very serviceable. You will remember that the canal is constricted about the middle of the bony portion; that it is more or less tortuous; and its general direction is downwards, inwards and forwards. The speculum is to be gently carried in this direction. Its insertion is easily accomplished by a slight pressure and rotation; it is not to be pushed.

If no foreign object can be seen upon flooding the ear with a good light, and the drum membrane is not destroyed, showing that the body has not passed into the middle ear, your duty ends. But if a foreign body is seen you want to keep prominently before you three facts: that no precedure requires more skill and patience than that which is often demanded to seize, and to remove a hard smooth foreign body from the external auditory canal; that it is no disgrace to fail to remove such a body; that it is infinitely better to desist in the attempt than to continue in your fruitless endeavors to the ultimate damage and inquiry of the surrounding structures. When no injury has been done to the parts by rough and meddlesome instrumentation, or by the object being rudely and forcibly thrust into the canal, the foreign body can generally be removed by syringing the ear with warm water. The syringe must work smoothly and the stream must not be forcibly thrown into the ear. The ear-douche in some respects is preferable to the syringe. It provides a continuous current which is sometimes more successful than a short rapid stream. Cold water must never be used in either syringe or douche, and the degree of heat must be suited to the comfort of the patient. In the case of a nervous child, it may be necessary to place it under the influence of an anæsthetic before this simple procedure can be properly performed.

It will be the exceptional case that is brought to you before some one has attempted to remove the body. Generally you will find the foreign body pushed back and impacted by the efforts made to remove it. The wall of the canal is tender, bruised, and swollen, or it may be that inflammation has insued from the damage done by rude and ignorant use of coarse and unsuitable instruments. In such cases it is best to first treat the swelling and inflammation and wait until these have been reduced. If the syringe fails under favorable conditions, and the patient be a child, it is best to give an anæsthetic and carefully free the body from any impaction and again use the syringe and warm water, and such efforts should be frequently repeated before attempts are made to seize and remove it with forceps or hooks. Indeed it is doubtful if such instrumentation is ever justifiable, as the use of the syringe repeated at intervals over a period of several days rarely fails to bring the body away. Many ingenious methods have been devised, and have been found serviceable. One is to cut a small disk of rubber adhesive plaster, and passing through the center a strong silk ligature, the small piece of plaster is now carried into the canal and placed against the foreign body. By means of a strong lens direct sun rays are focused on the plaster which adhere to the object. It is allowed to cool and when it is withdrawn by means of the ligature the foreign body may be drawn out with it. Another is to cut a disk of soft rubber larger than the canal, armed in the same way as the plaster with a strong thread. The disk of rubber is folded and passed into the canal, when it is withdrawn it acts as a valve or "sucker" and draws the object out. Many other similar devices are used, and let me conjoin upon you, that every other expedient should be resorted to, before forceps, hooks or drills are used.

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY L. F. HATCH, ANN ARBOR, MICHIGAN.

CARDIAC CACHEXIA: CALCAREOUS DEGENERATION OF THE VALVES OF THE RIGHT AND LEFT SIDES OF THE HEART.

BY M. POUPON.

Augustia A., aged sixty-three years, a milliner for four years, entered on the 3d of February, 1885, the Charity Hospital, Saint Martha's ward, bed number one, in charge of my learned master, Professor Laboulbène.

By questioning the patient we found that at times she is emphysematous and subject to bronchitis. It was impossible to find arthritic antecedents in her past. On the other hand there was without doubt alcoholism, cramps in her legs, and nightmares. She has had four children. Upon her arrival her face, lips, and especially her extremities were of a bluish tint. She affirmed that she had had this tint since the first of September last. She complained of very bad dyspnœa. There was a venous pulse. The liver was large and painful, a little ascites being present. The arteries were small, pulse not intermittant. The limbs were swollen. In a word this woman presented after six months the aspect of cardiac cachexia. The right side of the heart was plainly enlarged, the cardiac wall extending as much as three fingers' breadth to the right of the sternum. The apex beat of the heart was at the fifth intercostal space. Upon auscultation there was heard a systolic blowing at the level of the apex, and another blowing more intense and of a different tone at the level of the ensiform cartilage. At the base no blowing was perceptible. There was no albumen in the urine.

Professor Laboulbène rendered a diagnosis of cardiac cachexia followed by mitral insufficiency. They gave to the patient an infusion of digitalis, some wine and diuretics, joining at the same time dry cuppings. She was taken with dyspnœa of more than ordinary severity and died on the 25th of March, 1885.

Autopsy.—Slight broncho-pneumonia, cardiac liver, cardiac spleen, and conjested kidneys. We did not insist upon a description of the lesions of these organs about which there was nothing of particular note. The heart was small with numerous patches of fat upon its sides, and notably at the base: weight two hundred and eighty-five grains. The semilunar valves of the aorta were atheromatous, especially at the level of their inferior insertion. At the entrance of the aorta there were some calcareous spots and one of the valves presented one of these spots on its cardiac side about the size of a lens. The mitral valves also presented on their edges some of these spots. The pillars were in good condition. The right heart was largely dilated; the diameter of the auriculo-ventricular opening was eleven centimeters. The tricuspid valves presented many hard yellow spots, which were calcareous in consistency. As for the semilunar valves of the pulmonary artery, they presented at the level of their inferior insertions yellow swellings or nodules.

Reflections.—The interest of this case lies in the fact of the existence of cardiac cachexia in which the lesions of the tricuspid valves play no more important a point than those of the mitral valve; because the lesions of the latter are less numerous than those of the former, and, on the other hand, the semilunar valves of the pulmonary artery are equally affected. This patient, who was alcoholic, never had any rheumatism or syphilis. The cardiac lesions were made little by little. The heart was not hypertrophied as the result of old valvular lesions. There was not even the cause of endocarditis, thus establishing very slowly the cardiac lesions, we conclude, from the gradual degeneration of the valves of the two hearts. The interesting point in this presentation, is the great relative importance of the lesions of the right heart by affinity to the left heart and the development of a cardiac cachexia which had lasted six months, whilst the valves of the left heart performed their function regularly (as is proven by the entire abscence of hypertrophy of the cardiac muscles). The relative rarity of atheromatous lesions of the tricuspid valves renders it necessary, we think, to present this case to the anatomical society, as well as the great importance that the lesions of the right heart had in the production of cardiac cachexia.

INSANITY CURED BY ERYSIPELAS.

Dr. Lauderer (*Arch. de Neurol.*) cites a case of melancholia, of seven months' standing and tending toward dementia, in which the patient recovered from her mental affection with the subsidence of an attack of facial erysipelas, speading to the face.

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

SERVICE OF DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY T. J. SULLIVAN, M. D., ASSISTANT.

IRRITABLE TOE: PAINLESS OPERATION UNDER COCAINE.

C. R., aged twenty-three. Admitted February 15, 1886.

History.—Two years ago he sustained a railroad injury, crushing the right foot. At the time of injury the great toe and its metatarsal bone were removed. The wound healed slowly, and he was not able to use his foot for a year. The second toe is flexed and greatly irritated by the pressure of his boot. It is swollen and inflamed and very painful.

It is the patient's desire to have the affected toe removed.

Clinic: Amputation was considered the most rapid and satisfactory treatment. At the suggestion of Dr. Hendricks the muriate of cocaine was used to anæsthetize the part. Eight drops of a four per cent. solution were injected, by putting four drops in each side of the toe near the course of the nerve. The solution was prevented as far as possible from entering the general circulation by the application of an elastic band tight around his foot. In four minutes sensation was lost. A very deliberate operation was made. The toe was removed through the first phalanx, a part of it being allowed to remain. The patient witnessed the operation, and felt no pain during any portion of the operation; but experienced a peculiar crushing or tearing sensation when the bone was cut with the pliers.

The stump healed rapidly and the patient was discharged in a few days.

CYST OF BROAD LIGAMENT: OPERATION; RAPID RECOVERY.

Mrs. O. S., aged thirty-seven. Admitted March 10, 1886.

History.—During the past five years she has been increasing in size, more noticeably during the last two years; but did not notice any unnaturalness in the growth, which seemed simply adipose, until last October. At this date she began to suffer pain in the right side and felt a sensation as if something moveable were in the abdominal cavity. The right side began to grow larger, and the enlargement has been increasing since that time. Latterly her digestion has been poor and she complains of a sense of pressure in the epigastrium. She has never had any children and no miscarriages, and has had no menstrual disturbance. Family history good.

March 17: Shown at clinic. Diagnosis, unilateral, uncomplicated cyst, probably ovarion. Placed under chloroform, and a median incision about three inches in length made through the abdominal wall, which was very thick. The cyst was punctured and a large amount of clear fluid was evacuated. There were no adhesions, and the cyst was readily turned out and the pedicle transfixed and ligated with a strong carbolized silk ligature. The cyst removed and pedicle dropped back into the abdominal cavity. The cyst did not involve the ovary, but came from the broad ligament. The left ovary was cystic and in a state of degeneration, and was removed with the cyst. The right ovary was healthy, and was not molested. The abdominal incision was closed with deep carbolized silk and superficial horse-hair sutures. The shock was not great. The patient came out with a strong pulse.

March 12: Morning—temperature, 99.8°; pulse, 90; no pains; slight nausea.

March 13: No increase of temperature or pulse. Doing well.

March 15: Brought before the class. Sutures removed. Making a very rapid and satisfactory recovery.

March 22: Discharged.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING JULY.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of July (four weeks ending July 31), 1886, as follows, the diseases being arranged in the order of their greatest area of prevalence: Diarrhœa, neuralgia, intermittent fever, rheumatism, consumption of lungs, cholera mórbus, bronchitis, tonsilitis, remittent fever, cholera infantum, dysentery, erysipelas, inflammation of kidney, whooping-cough, inflammation of bowels, influenza, typho-malarial fever, diphtheria, pneumonia, typhoid fever (enteric), scarlet fever, puerperal fever, inflammation of brain, cerebro-spinal meningitis, measles, membranous croup, and small-pox.

For the month of July, 1886, compared with the preceding month, the reports indicate that cholera morbus, diarrhœa, cholera infantum and dysentery increased, and that influenza, rheumatism, pneumonia, and consumption of lungs decreased in prevalence.

Compared with the preceding month the temperature in the month of July, 1886, was higher, the absolute humidity and the day ozone were more, the relative humidity and the night ozone were less.

Compared with the average for the month of July in the eight years, 1879 to 1886, intermittent fever, remittent fever, measles, consumption of lungs, and dysentery were less prevalent in July, 1886.

For the month of July, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature was slightly lower, the absolute and the relative humidity and the night ozone were about the same, and the day ozone was slightly more.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of July, 1886, at thirty-five places, scarlet fever at twenty-two places, typhoid fever at seventeen places, measles at ten places, and small-pox at two places.

Reports from all sources show diphtheria reported at twelve places less, scarlet fever at twenty-six places less, typhoid fever at eleven places more, measles at six places less, small-pox at one place less in the month of July, 1886, than in the preceding month. HENRY B. BAKER, M. D., Secretary.

LANSING, August 5, 1886

EDITORIAL PERISCOPE.

STERILITY DUE TO UTERINE DISPLACEMENTS.

In a recent lecture, M. Pajot says: Another cause of sterility in women has often been, and still is, turned to profitable accounts by the quacks, and, unfortunately, also by doctors who prefer their own interests to those of science. This cause is uterine displacement. Two years before the war I received a visit from an Austrian lady, who had an extreme retroflexion, for which she had consulted nearly all the doctors in the world, and they all, except Scanzoni, had told her that under the circumstances pregnancy was impossible. She menstruated regularly and painlessly. I told her that if the menses could pass out other things could pass in, and that her displacement was not a hopeless obstacle to conception. A week after I saw her she became pregnant, and was subsequently confined naturally, after which I kept her in bed till her menses reappeared (three months), and succeeded in producing a perfectly straight uterus, of which I was very proud. A year later the displacement was as bad as ever, but that did not prevent her from having two or three more children. This fact puts those who, with much ado, try to replace the uterus by special instruments, quite in the wrong. This is all useless; the best replacer of the uterus is pregnancy. A displacement cannot be considered as a disease: it is an infirmity, and moreover an infirmity easy to be borne. It is said that it causes grave inconveniences to women.

For my part, I declare that if women had not been told by the doctor or midwife of their condition they would never suspect it, so little does it annoy them! It is only in cases of considerable descent, which weighs heavily and drags, that a displacement it a real inconvenience.

CLINICAL AND PATHOLOGICAL CORRELATION OF RHEUMATISM, GOUT, DIABETES, AND CHRONIC BRIGHT'S DISEASE?

At the first meeting of the Association of American Physicians, Washington, the above question was discussed (*Weekly Medical Review*).

Dr. Tyson, the referee, began by defining the diseases included in the subject. The usual definitions of rheumatism and gout, as general diseases with local expressions were given. Diabetes was subdivided into two varieties, the milder and more severe form. The former consists, essentially, in a defect in that particular metabolic office of the liver by which glucose is converted into glycogen. It is due to over-stimulation of the liver cells by the excess of absorbed glucose, arising from the habitual over-use of saccharine and starchy food. The more severe form of diabetes may be termed neurogenous and is caused by some direct or reflex influence on the vaso-motor center, whence arises a hyperæmia and accelerated circulation through the liver, as the result of which the glucose absorbed during intestinal digestion is carried too rapidly through the liver to permit its conversion into glycogen. To this is added, in advanced stages, glycogen resulting from the splitting up of the products of digestion of nitrogenous foods.

Taking up the discussion, first as to rheumatism and gout, the referee called attention first to the difference in the morbid anatomy of the two diseases. In the absence of anything specific or peculiar in the change in the joints in rheumatism, while in gout there is the peculiar deposit of sodium urate in the joints or their vicinity. The composition of the blood is definitely altered in gout by the almost constant presence of an excess of uric acid in combination with sodium, whereas no change of corresponding importance is found in the blood of rheumatism. Heredity plays a much more important role in gout than in rheumatism, reaching in the former, according to various observers, fifty to one hundred per cent., while in rheumatism the maxium claimed is thirty-four per cent. The early age at which rheumatism presents itself, as compared with gout, implies a difference in the etiology, as does also the absence of renal and the presence of cardiac complications. Alcoholic liquors and over-indulgence of food have no influence in the causation of articular rheumatism: in gout they are all-powerful.

The exciting cause of rheumatism is always cold, dampness, or both. The cause of the explosion or the acute attack of gout, is the cause of the disease itself, and is due either to the over-accumulation of uric acid in the blood, whether as the result of increased formation or defective elimination, or to diminished power of resistance of the organism through some accidental cause, atmospheric or physical.

Moreover, except in the case of salicylic acid, which is admitted by all to be useful in both affections, Dr. Tyson thought that the treatment required by the two diseases was different. The treatment of gout is eliminative, that of rheumatism is restorative. It is true salicylic acid is efficient in both diseases, but this is not sufficient that they are the result of the same cause, so long as that cause is so easily demonstrated in one and not in the other. Nor is the case strengthened by the theoretical reasoning which so well explains the action of salicylic acid, that it prevents the formation of uric acid in the blood by seizing upon the glycocine out of which uric acid is formed.

The relation of gout to that form of chronic renal disease known as chronic interstitial nephritis is a true correlation, since there is every reason to believe that the cause of gout is one of the causes of this form of chronic renal disease so common in gout, and the evidence of renal disease is often found long before the gout manifests itself.

To estimate the relation between gout and diabetes, it is necessary to remember that there are the two forms referred to; with neither of them is there any pathological relation. Between gout and the first or mild form of diabetes there is a clinical correlation, although many of the facts on which it has been founded, the referee believed to be erroneous. Thus, although uric acid sediments are quite common in diabetes, yet careful quantitative analysis shows no increase in the amount of uric acid excreted. The uric acid sediments must, therefore; be the result of the excessive acidity so characteristic of diabetic urines, due to the fermentative processes.

Again, it is said the lithemic urines often contain sugar. This, he was confident, was much rarer than is commonly supposed, because of the fact that uric acid reduces the salts of copper, and this reaction is mistaken for that of sugar. He thought that the inability of gouty persons to digest saccharine and starchy elements of food should not be regarded as a proof of clinical correlation, because it simply indicates a feeble converting power of the intestinal digestive fluids over the carbodydrates. In diabetes there is no defect of this kind. The carbo-hydrates are converted into glucose with facility. The trouble is with the liver, which is not able to reconvert the glucose into glycogen.

Between gout and the more severe form of diabetes, which is the result of disease at a point distant from the liver, there is no correlation either clinical or pathological.

Between diabetes and Bright's disease there is a relation of this kind. The effect of the circulation through the kidneys, surcharged with sugar alone or with sugar, acetone and diacetic acid, is to irritate the renal cells and produce a degree of chronic parenchymatous nephritis instead of the interstitial nephritis, which is so closely correlated with gout. From recent observations, there is reason to believe that these changes take place in the kidney much earlier than used to be supposed, and that albuminuria appears correspondingly early, either coincidently or in alternation with glycosuria. The difference between the relation of gout to Bright's disease and of the more severe or neurogenous diabetes, is, that in the former that which causes the gout causes the Bright's disease, so that there is a true correlation; whereas in neurogenous diabetes, it is a result of the diabetes which causes the renal complication.

As to diabetes and rheumatism, the idea that these two diseases are closely correlated, has apparently received substantial support from the results of treatment of the two diseases by salicylic acid. Occasional reports as to the efficiency of salicylic acid in diabetes, have acquired additional impulse from views which have recently been promulgated by Latham, who concludes on clinical grounds that there are two forms of diabetes. One due to neurotic disturbances of the function of the liver and the other due to neurotic disturbances of the functions of muscle. As the result of the latter, glucose is formed in the muscles and passes thence into the circulation. This latter is so closely related to rheumatism that one degree of oxidation develops the materies morbi of rheumatism, and another develops glucose. Having shown also by the same reasoning that the administration of salicylic acid arrests the formation of uric acid, lactic acid and glucose, he explains the usefulness of salicylic acid in some forms of diabetes, and says that in doses of from ten to twenty grains, three times a day, he has seen it produce marked improvement. More recently, Holden reports the successful treatment of six cases of diabetes with salicylic acid.

The referee whose experence with salicylic acid in the treatment of diabetes had not heretofore furnished satisfactory results, had not yet had the opportunity of applying this more recent principle, that it is in the cases with rheumatic pains that it is especially serviceable. He held that until more cases were collected in which this principle of treatment was applied, the question was not ripe for decision. In a single case which had come under his observation, in wnich it was claimed that salcylic acid had been very useful, the sugar had been found increased rather that diminished.

Dr. William H. Draper the co-referee said:

It is fair to presume that this question would not have been propounded if clinical experience did not suggest it. It certainly is not yet justified by the present state of knowledge in pathology. Although the question is premature from a pathological point of view, it can hardly be regarded as without interest and possibly importance, from a clinical stand-point. It is from this latter aspect that my remarks shall be made.

By gout is meant, I take it for granted, not simply the arthritic malady, but a diathesis which manifests itself through more or less well defined derangements of nutrition, which give rise to a variety of secondary cerebro-spinal irritation and provoke definite structural changes in the blood-vessels, and in connective tissue of the parenchymatous organs and in the nervous system.

By diabetes we are to understand I suppose the more common and lesser form of that disease.

Rheumatism is so vague in its ordinary application that it is not easy to comprehend exactly what is meant in this question. It is persumed that it covers acute articular rheumatism and the subacute forms in which the differential diagnosis from subacute gout is so difficult.

The form of Bright's disease is probably the form of chronic diffuse nephritis which is characterized by extreme sclerotic changes in the connective tissues of the kidneys and in the arteries and by cardiac hypertrophy.

I think that the experience of most clinical observers will justify the statement that gout, rheumatism, diabetes and chronic Bright's disease are frequently associated, sometimes in the same individual history, more frequently in the histories of families. The association of gout and even chronic rheumatism with chronic Bright's disease is very common in the individual, while the association of gout with diabetes, or of diabetes with granular kidney, is not common. Chronic rheumatism may exist without even being complicated with gout or diabetes or chronic nephritis, but in families where the association of morbid phenomena can be traced, I think that it will be acknowledged that these diseases are frequently found in more or less marked alliance.

Granting this association, are there any facts to show their correlation? Are they reciprocal, interchangable affections, transmutations of the same morbid process, and therefore recognizing a common determining cause as yet unknown?

The first fact that suggests the idea that they are cognate forms is that of heredity. First as to gout and diabetes. Glycosuria often recognizes a gouty ancestry. The term glycosuria being used to express the lighter form of the disease. In many cases the grave form of diabetes is not traceable to a gouty origin. The speaker had seen many cases leading him to believe that excluding the cases of diabetes of nervous origin, careful investigation of the family history would reveal the presence of gout in the majority of cases. Second, concerning gout and rheumatism, the fact of heredity as establishing a connecting link is not so evident, but it has been pointed out that articular rheumatism frequently occurs in the children of gouty parents. The influence of heredity in determining the association of the subacute form of rheumatism and gout, can not be positively decided.

Third, as to the frequent manifestation of heredity in the history of gout and interstitial nephritis, I think that there can be no question. This form of Bright's disease not only occurs as a complication of inherited articular gout, but is often observed in the members of gouty families who have themselves never exhibited any articular lesions. This is especially seen in the female line.

I wish next to call attention to the association with these diseases of certain common derangements of nutrition. While it cannot be claimed that organic chemistry has as yet done more than formulate the general principles that gout and diabetes are associated with the signs of incomplete metamorphosis of the food elements, it is daily making progress in solving the complex processes by which each atom of carbonaceous and nitrogeneous food is finely resolved into carbonic acid and urea. In these two diseases there is a diminished capacity for converting the carbo-hydrates. The occurrence of sugar in the urine of gouty persons is not infrequent, and of lithic acid deposits in the urine of diabetes is not infrequent.

Gout, diabetes and rheumatism in their treatment by medicines, exhibit reciprocal relations. In these various affections the alkaline treatment is used with benefit. It is admitted that the value of alkaline treatment in acute rheumatism is not sufficiently well established to justify the proposition that the disease is one that ground a correlation of gout. The value of salicylic compounds in the treatment of gout, diabetes and rheumatism, suggests the idea that these diseases have something in common, either causal or concomitant, which the preparations of salicin antagonize.

The clinical observations which support the idea of a correlation of gout, diabetes, rheumatism and certain definite structural changes in the kidneys and blood-vessels, namely, the frequency of hereditary transmission in the same family and their occasional co-existence in the same individual, the common idiosyncrasy of a diminished capacity for the complete conversion of the carbo-hydrates, and finally the common reactions which they exhibit to the same remedies, are, of course, open to criticism, but they nevertheless excite a reasonable suspicion that these diseases have at least certain common features which, in all probability, proceed from similar derangements of physiological functions.

This much it seems to me may be acknowledged even in the absence of any adequate pathological evidence that these diseases are attended with any common structural lesions or specific functional disturbances.

There are many unsolved problems in the pathology of gout, diabetes and rheumatism, and the working hypotheses of the clinical observers in this field are being constantly unsettled by the revelation of the physiological laboratory. It would seem, therefore, that the only conclusion we are at present justified in making as to the correlation of the diseases in question, is this: clinically, they are often associated by hereditary transmission, by co-existence and alternation in the same individual, by presenting similar idiosyncracies in regard to the power of converting the carbo-hydrates, and by being more or less successfully controlled by the same remedies. Pathologically, they must still be regarded in the absence of any demonstrable common determining cause either functional or structural, as more or less distinct and specific diseases.

CONDENSATIONS.

Glycerine painted over the tongue is recommended by Dr. Cottor as affording great relief in fevers, keeping it moist and removing the sensation of thirst.

Puerperal Convulsions Treated with Pilocarpine.—Dr. Murphy reports in the *Lancet* three cases of puerperal eclampsia successfully treated with pilocarpine. These cases were severe in character, and in each pilocarpine acted promptly and satisfactorily. It was given hypodermically in one-third grain doses, and repeated every six to twelve hours if the convulsions reappeared.

Painless Catheterism.—The following almost painless method of catheterization is recommended by Dr. Stamps for an hyperæsthetic urethra. Inject through the catheter while it is being introduced, water as warm as can be borne. The water regurgitates between the instrument and the urethral wall, and the warm water will, in many instances, relieve the irritability of the urethra.

Cold Air.—An apparatus is in use in Europe by which a person is enabled to breathe air from without while sitting indoors in a warm room. It consists of a simple tube, communicating through the window with the external air, to one end of which an attachment to fit over the mouth and nose is attached. The inventor claims that, as tubercle bacilli are destroyed by a low temperature, so pulmonary phthisis may be cured by breathing frosty air through the tube.

Cocaine in Mercurial Stomatitis.—A five per cent. to a ten per cent. solution of cocaine is advised by Dr. M. Bockhart, to be applied to the gums with a camel's-hair pencil ten minutes before eating, as a means of relief in this painful affection. It will enable the patient to eat his meals in comfort, whereas he could not do so without its use. In aggravated cases a stronger solution may be necessary. The brush should be thoroughly cleansed with carbolic acid after each application.

Are the Muscles Dead or Alive during Rigor Mortis?—Professor Brown-Sequard has demonstrated that as long as *rigor mortis* persists the muscles of an animal undergo slow contractions and elongations. It was only when one set of a group of antagonistic muscles was divided, that the movements were perceptible, and they ceased when the *rigor mortis* passed off. These movements have no dependence upon external conditions. The elongation of some muscles and the contraction of others, were observed at the same time in the same animal. Professor Brown-Sequard comes to the conclusion that these movements prove that the muscles in *rigor mortis* are not dead, but possess vital powers.

Small-Pox.—From the Report on the Quarantine System of the Saint Lawrence, it is evident that the existing quarrel between the health officers of the Dominion is only increasing the very lax condition of the quarantine system of the Saint Lawrence. The cases of small-pox occurring in Chippewa county of this state have been directly traced to a young man who had shipped on the "Athabaska," a steamer upon which some Russians took passage, who were previously landed at Grosse Isle, of whom several were sick, suffering from small-pox. If this laxity is not corrected, quarantine will have to be made against the border states, unless the health officials of these states are not extremely active and cautious.

Medicine in China.—The dyspepsia and paralysis so common in China is credited by Dr. Lucy Stritmatter, in an article to the *Columbus Medical Journal*, to their diet. They live principally on rice and vegetables. The rice is steamed just enough to warm it, and the vegetables simply wilted. Their pharmacopœia is most crude and astonishing. When a child is born, the umbilical cord is measured to the top of the child's head, cut from the placenta at that place, and when this mass of decaying cord loosens from the child it is sold to the druggist. "Cats' heads and many other disgusting things are purchased by the same functionary. The body of a still-born child, provided it be a first-born and a son, is supposed to contain medical properties." Gynæcology and obstetrics are not practiced at all by the doctors, the seclusion in which the women live in that land rendering it impossible. Dr. Stritmatter found the Chinese people more susceptible to her remedies than the patients in her English-speaking practice.

WILL POWER.—The control of the emotions and passions by the higher mental faculties is a subject of great interest and if properly appreciated of great value to the medical practitioner. In theory no one denies the great power of the will, while but few consider its great importance and influence in disease; or the difference as to degree of its cultivation or exercise in various individuals. Attention is called by the *Lancet* to several memorable historical incidents, which attest the difference which men and women exhibit in their power of controlling the emotions when called upon to witness or endure suffering. It is a popular idea, that in spite of their more sensitive nature, women can exercise more self-control and bear pain better than men do, and some extraordinary cases can be adduced in support of that belief. In those who from want of this power, are unable to subdue their emotions or endure pain, fear becomes an important pathological factor, particularly is this true in an epidemic such as cholera. The physician should remember that fear not only aggravates, but is an important factor in the production of disease.

PAINLESS REDUCTION OF SHOULDER DISLOCATIONS.—Dr. Macleod, of Shanghia, gives (*British Medical Journal*) the following directions for the reduction of sub-glenoid dislocations without an anæsthetic: Let the patient lie down on his back on the floor or ground, with the dislocated arm outstretched at right angles to the trunk, and also on the floor. Having told the patient to lie quite still and make no effort, let the surgeon, placing the appropriate heel in the axilla, make traction gently and steadily at right angles to the line of the trunk; and, as there may be no jerk or evident intimation of the return of the bone to its place, let him ascertain its position, if necessary adducting the limb to make sure; if reduction has not taken place, let him renew and increase the force of traction, and repeat the examination until he has succeeded or failed, in which latter case nothing has been done to interfere with other methods. It is possible that, in many cases, the heel in the axilla may be unnecessary, but it will serve to steady the scapula, and affords a better counter-extending force than the weight of the patient's body, and thus leaves him free to lie still and make no effort as if to aid.

CONDITIONS WHICH DETERMINE COAGULATION OF THE BLOOD.—Holzmann, through his labors on coagulation, has obtained the following results: (1) A body called fibrinogen, belonging to the class of globulins, can be obtained from horse's blood, and solutions of fibrinogen neither coagulate spontaneously at ordinary temperatures nor upon dilution with water. (2) Defibrinated blood, blood serum, watery extract of the albuminous coagulum formed in blood serum by the coagulation in the same way, the putrescent fluids obtained from cooked egg-albumen coagulated in the same way, the putrescent fluids obtained from cooked egg-albumen, and long-continued passage of oxygen, all cause typical coagulation of the solution of fibrinogen at ordinary temperatures, with the production of fibrin. (3) Fibrin-ferment is not peculiar to the blood, but occurs among the decomposition products of albumen. (4) It is probable that fibrin is the product of the oxidation of fibrinogen. (5) When a dog is rapidly bled to death (one and a half to three hours), the last portions of blood drawn clot quicker than the first, though the amount of fibrin formed does not markedly vary. (6) Venous blood clots more slowly than arterial blood; suffocation delays coagulation. Curara, chloral hydrate, chloroform, quinine and soda carbonate also delay the coagulation.

NEW PUBLICATIONS.

DISEASES OF THE TONGUE. By Henry T. Butlin, F. R. C. S., Assistant Surgeon and Demonstrator of Practical Surgery and Diseases of the Larynx, Saint Bartholomew's Hospital; Lately Erasmus Wilson Professor of Pathology at the Royal College of Surgery. Illustrated with chromo-lithographs and engravings. 12mo: four hundred and fifty-one pages. Cloth. Lea Brothers & Company, 1885.

The author tells us in his preface that this work is the result of notes and drawings collected while a member of the staff of Saint Bartholomew's Hospital. When made, it was not with the intention of elaborating them into a book, but in response to the request, to give this material to the profession, he has complied in the form of this little work.

The eight chromo-lithographs represent very accurately varieties of as many different types of diseases that effect the tongue.

In the arrangement of his work the author has not been guided by any precedent made in works on surgery, but has followed the encyclopædic method as closely as the difficulties of such a classification would permit.

The author does not accept the view of some French authors, that the ulcers underneath the tongue, of so frequent occurrence in children with whooping-cough, are the specific lesion of that disease.

Under the subject of treatment of carcinoma the author first considers pre-cancerous conditions, and emphatically repeats the charge: "Avoid caustics," and adds: "If there is one means more certain than another to transform a simple into a cancerous sore it is the use of caustic."

The language of the text is clear and concise. The author has aimed to state facts, rather than to express opinions, and has compressed within the compass of this small volume, the pathology, etiology, etc., of diseases of the tongue that are inconveniently scattered through general works on surgery and the practice of medicine. The physician and the surgeon will appreciate its value as aid and guide.

THE YEAR-BOOK OF TREATMENT FOR 1885. A Critical Review for Practitioners of Medicine and Surgery. 12mo: three hundred and sixteen pages. Cloth. Philadelphia: Lea Brothers & Company, 1886.

The contributors to this book are prominent American and English physicians and writers. The object of contributors and publishers is to present to the practitioner an account of the more important advances that have been made in the treatment of disease, during the past year.

The material is classified, and each department of practice has been carefully considered. Special care has been taken to embody all recent original pathological and clinical work bearing directly upon treatment.

The medical literature of all languages has been searched; and with each article placed under contribution, full reference is given: name of original contributor, where published, date and page.

The nature of the book is sufficient to commend it.

BOOKS AND PAMPHLETS RECEIVED.

FORTY-THIRD ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM AT UTICA, FOR THE YEAR 1885. Transmitted to the Legislature January 15, 1886. Albany: Ward, Parsons & Company, 1886.

THE GENUINE WORKS OF HIPPOCRATES. Translated from the Greek, with a Preliminary Discourse and Annotations. By Francis Adams, LL. D., Surgeon. Volume II. Being Volume VII of Wood's Library for 1886. New York: Wlliiam Wood & Company.

ENUCLEATION WITH TRANSPLANTATION AND REIMPLANTATION OF EYES. By Charles H. May, M. D., Instructor in Ophthalmology, New York Polyclinic; Clinical Assistant, Diseases of the Eye and Ear, College of Physicians and Surgeons, New York. Reprinted from the *Medical Record*, May 29, 1886. New York: Trow's Printing and Bookbinding Company, 1886.

THE FUNCTION OF THE RECURRENT LARYNGEAL NERVE. From Experimental Studies in the Biological Laboratory of the Johns Hopkins University. By Frank Donaldson, Jr., B. A., M.D., Chief of Clinic for Throat and Chest, University of Maryland, and Late Scholar in Biology, Johns Hopkins University. Reprinted from the *American Journal of the Medical Sciences*, July, 1886.

THE MODERN TREATMENT OF EAR DISEASES. A Classification of Over Two Thousand Consecutive Cases of Ear Diseases at Dr. Sexton's Aural Clinic, New York Eye and Ear Infirmary. By Samuel Sexton, M. D., Aural Surgeon, and W. A. Bartlett, M. D., and Robert Barclay, M. D., Assistant Surgeons. "The Physician's Leisure Library." Detroit: Geo. S. Davis & Company, 1886.

HOMŒOPATHY AS VIEWED BY A MEMBER OF THE MASSACHUSETTS MEDICAL SOCIETY. An Address delivered April 15, 1886, before the Hahnemann Society of the Boston University School of Medicine. By Vincent Y. Bowditch, A.B., M.D., (Harvard). Reprinted from the *Boston Medical and Surgical Journal*, June 24 and 30, 1886. Boston: Cupples, Upham & Company, 1886.

DISEASES OF DIGESTION, URINARY AND GENERATIVE ORGANS. Illustrated by one hundred and six fine wood engravings. Being Volume II of the Hand-book of Practical Medicine. By Dr. Hermann Eichhorst, Professor of Special Pathology and Therapeutics and Director of the University Medical Clinic in Zurich. This is Volume VI of Wood's Library for 1886. New York: William Wood & Company.

PRELIMINARY ACCOUNT OF EXPERIMENTS IN REGARD TO THE CIRCULATORY AND RESPIRATORY CHANGES OBSERVED IN ANIMALS PLACED IN THE PNEUMATIC CABINET. By H. N. Martin, F. R. S., Professor in the Johns Hopkins University, and Frank Donaldson, Jr., M. D., some time Graduate Scholar in the same. Reprinted from the *New York Medical Journal* for May 15, 1886.

A MANUAL ON INHALERS, INHALATIONS, AND INHALANTS, AND GUIDE TO THEIR DISCRIMINATING USE IN THE TREATMENT OF COMMON CATARRHAL DISEASES OF THE RESPIRATORY TRACT. By Beverley Robinson, M. D., Clinical Professor of Medicine at the Bellevue Hospital Medical College, New York. "The Physician's Leisure Library." Detroit: Geo. S. Davis & Company, 1886

INTUBATION OF THE LARYNX FOR DIPHTHERITIC CROUP. By E. Fletcher Ingals, A. M., M. D.. Professor of Laryngology, Rush Medical College; Professor of Diseases of the Throat and Chest, Woman's Medical College, Chicago. Presented to the Chicago Medical Society, June 21, 1886. Reprinted from the *Journal of the American Medical Association*, July 10, 1886. Chicago: Printed at the Office of the American Medical Association, 1886.

THE USE OF ELECTRICITY IN THE REMOVAL OF SUPERFLUOUS HAIR AND THE TREATMENT OF VARIOUS FACIAL BLEMISHES. By George Henry Fox, A.M., M. D., Clinical Professor of Diseases of the Skin, College of Physicians and Surgeons, New York; Professor of Diseases of the Skin, New York Post Graduate Medical School; Attending Physician to the New York Skin and Cancer Hospital, etc. "The Physician's Leisure Library." Detroit: Geo. S. Davis & Company, 1886.

NEW MEDICATIONS. By Professor Dujardin-Beaumetz, Member of the Academy of Medicine and of the Council of Hygiene and Salubrity of the Seine; Physician to the Cochin Hospital; Editor-in-Chief of the *Bulletin Général de Therapeutique*, Paris, France. Translated by E. P. Hurd, M. D., President of the Essex North District Medical Society; Member of the Massachusetts Medical Society, and of the Climatological Society; One of the Physicians to the Anna Jacques Hospital, Newburyport, Massachusetts. Two Parts. "The Physician's Leisure Library." Detroit: Geo. S. Davis & Company, 1886.

MEDICAL DIGEST.

DIPHTHERIA AS A CHRONIC MALADY IN PARTICULAR INDIVIDUALS, WITH LIABILITY IN THEM TO RECRUDESCENCE.

Under the above title Dr. D. Astley Gresswell recently submitted a paper to the Epidemiological Society of London, embodying certain experiences with which he had met during investigations into occurrences of diphtheria, made on behalf of the Medical Department of the Local Government Board. During these inquiries Dr. Gresswell had come across a considerable number of persons who, having been affected with diphtheria years ago, have suffered almost constantly since from some form of throat affection, the most trifling exposures to wet or cold having sufficed to produce in them acute inflammation of the tonsils. These attacks have also been associated with further occurrences of diphtheria amongst those coming into contact with persons thus affected, and in the absence of any other satisfactory explanation as to the origin of these attacks of diphtheria, the question has arisen how far the recurrences of throat inflammation have been recrudescences of diphtheria itself. In short, "Is the chronic tonsillar inflammation which is left in particular persons after an attack of diphtheria due to continued sojourn in them of the material cause of diphtheria, and do the violent reactions of the tonsils of these persons to weather changes involve likelihood of rendering them diphtheritically infectious?" In connection with this point it was noticed that persons with chronic tonsilitis, as a remnant of former diphtheria, were not only often the first persons to suffer diphtheria anew, but they frequently developed unmistakable and infectious diphtheria within a few hours of exposure to what they from long experience recognized as a sufficient though commonplace cause *in them* of acute throat trouble.

Turning to Dr. Gresswell's Report to the Local Government Board on the prevalence of diphtheria in the rural sanitary district of Erpingham (December, 1885), we find the following cases cited as illustrations of the points referred to:

"*I.*—In December, 1881, Mr. P. and Mrs. P., of Bodham, with their daughter Agnes, aged eleven years, had diphtheria, the only other member of the family remaining well. Ever since this event Mrs. P. and Agnes have had sore-throat whenever exposed to cold, especially if the feet have been wet, and Agnes's tonsils 'swell up enormously whenever she gets cold.' Agnes had a severe sore-throat in July, 1883, very shortly after taking the duties of monitress in the Bodham School; her case is attributed to 'taking cold,' and personal infection cannot be traced. She continued her duties for a day or two after falling ill, and within a few days three children attending the school fell ill of diphtheria, namely, on July 24, Nellie B., eight years of age; on July 26, Robert Gant, twelve years of age; and on July 31, Samuel W., four and one-half years of age. Nellie died August 12, and a brother infected apparently by her, died on August 9. Samuel W. had entered the school only two weeks before he fell ill; he died August 9, and four others in his family subsequently fell ill, two, of the ages fifteen and twelve years, apparently escaping. After Robert Gant fell ill all the others of the family were affected, namely, father, mother, and children of the ages sixteen, fourteen, and thirteen years. It is somewhat uncommon to find a family of such adult ages so generally and so chronically affected as this has been. Two of them, Minnie, aged fourteen years, and Robert, aged twelve years, have suffered ever since; 'the slightest cold goes to the throat,' and the tonsils swell largely on exposure to wet or cold. Minnie now, April, 1885, has a strawberry tongue, her left tonsil is enlarged, and the pharyngeal mucous membrane is thickened with hypertrophied follicles. Robert's tonsils also are large, one is lobulated, the follicles are large, and a sticky white substance exudes from them. Ellen B., who frequently visited one of the above, took diphtheria; she died October 11, 1883, and a lodger in the same house fell ill shortly after Ellen. Mrs. Burton took a child, Ethel Baker, from Thornage to visit the Gants, of Bodham, and the next day on returning to Thornage she felt as if she 'must have got the foot and mouth disease,' and Ethel was taken with vomiting, and died of diphtheria seven days later, January 7, 1884. Robert P., who had communication with the Gants, suffered from diphtheritic paralysis late in 1883. Moreover, quite recently, April, 1885, Miss J. fell ill with diphtheria; she lives in a detached house, close to the Gants, and she holds daily communication with the Gants, more especially with Minnie, who still suffers from a chronic tonsilar affection. Ethel was the only one affected in the large family of Mr. Baker, but she was well isolated, and her case, as also that of Mrs. Burton, seems to be traceable only to intercourse with the Gants. Miss J.'s case also seems to be traceable to no other than this source. If this be a correct view, then diphtheria may in *certain persons* become chronic, and may be transmitted for some long time after the brunt of the disease has passed off. It should be noted, however, that Ethel, Mrs. Burton, and Miss J. had all been subjected to the local conditions of a previously-infected house. This house (that of the Gants) is isolated and freely exposed; the water is taken from a well about three yards from an old privy vault, and five yards from two large open ash-pits; one of the bedrooms is very dark and its walls are very damp, and the house has not been repapered since its invasion by diphtheria.

"*II.*—Diphtheria occurred in the family of W., six years ago. Henry was first taken ill, and then in turn his mother, his two brothers, aged five years and one year, and his sister, aged three years. In December of the following year Henry fell ill again of diphtheria, and died. Shortly after Henry's attack, John, then nearly two years of age, was affected severely with diphtheria, and ever since he has been 'subject to severe attacks of sore-throat,' and 'when he gets wetshod the tonsils swell and become covered with a white coating.' In August of last year John, then aged seven years, played truant one morning, and returned to school (where he boarded) late at night, very wet and feeling ill, and next day he was reported by his medical attendant, largely experienced in diphtheria, to be suffering from this affection. It is possible that while truant or previously he communicated with diphtheria-infected persons, but such communication cannot be traced. The later history of this lad is as follows. In November he was taken ill again 'in the same way' at home, but the attack 'was not sufficiently severe to call in a doctor.' A few days later, namely, on November 12, a governess in his home, who is said to have had diphtheria ten years ago, also fell ill with diphtheria; the charwoman also manifested diphtheria a few days after she had communication with the governess, then convalescing, and she in turn apparently carried infection to her son. John's tonsils are now enlarged, a thin white sticky substance covers parts of their surfaces, and the mouths of some of the follicles are filled with a similar substance. It should be mentioned, however, that John visited home the day before he played truant, and the insanitary condition of the place deserves notice. It is a lone farm-house, in a damp situation; soakage from a cow-crew passed by an open drain into a large and almost stagnant pond some thirty yards in front of the house; the sink pipe with open bell trap passed directly into a slop cess-pool immediately beyond the kitchen wall; an old privy vault still in use adjoined the parlor, whose floor and walls are damp, as are also the walls of the bedroom above, in which the governess slept; a cellar, entered from a passage communicating with all the rooms of the house, was and still is very damp, and apparently received soakage from the above-mentioned cess-pool; the house has not been repapered since the date of the first attacks of diphtheria in it six years ago. Nothing of importance was made out here in regard to diseases among the farm animals.

"*III.*—Another case where personal infection of the initiatory case in a series has not been traced occurred in the person of Mrs. D., of H. She had diphtheria seventeen years ago at Weybourne, and ever since on exposure to wet or cold she has suffered from soreness of the throat, with enlargement of the tonsils and pains about the head. For six years preceding 1882 she had a yearly attack of quinsy, and since the last attack she has suffered every three or four weeks (without manifest relation to other conditions) from enlargement of the tonsils, especially of the right one, with pain in the ear, over the nose, and over the right side of the neck, coupled with discharge of some offensive matter from the throat. Being disabled in August of last year and for some months afterwards by a severe attack of what was regarded as tonsilitis, she engaged the services of M. F. on December 8, who had herself but just recovered from an attack of 'tonsilitis.' On December 19, M. F. took diphtheria, and was at once removed to her home, where she died December 24. Two weeks or so later her brother (twenty-one years of age), who was living at her house, fell ill, and he is now recovering from diphtheritic paralysis of the arms. Mrs. J. fell ill of diphtheria in November, two days after visiting Mrs. D.; she also has been for years subject to sore-throat. Mrs. B., who visited Mrs. J., also took diphtheria in December, and communicated it to her husband; and T. F., who visited Mrs. J. while ill, took diphtheria on November 21, and died December 18. Mrs. D. has two children of three and eleven years of age respectively, and neither they nor her husband have had any affection of the throat, but the children are carefully isolated when Mrs. D. is suffering from sore-throat. It appears that Mrs. D. suffered from a genuine attack of diphtheria in August last; she attributes it to exposure to variations of temperature while cooking, but it must not be overlooked that she may have received specific infection from customers in the shop to which she attends. Her house, moreover, is small, cramped, dark, and damp; it lies between the main street in front and a narrow alley behind; the floor of the sitting-room is of brick; it is always damp, and quickly becomes covered with a blue mould under the carpet; a large privy vault is used in common by the inmates of this and the adjoining house, between the two opposite kitchen walls of which it lies, and when full it exhales offensively into both houses, and actually leaks into the kitchen of the adjoining house. The stench of this privy is said to be suffocative. Ill-health prevails in both these houses.

"*IV.*—Many other individuals and families furnish facts of interest in this connection. One family (in Holt) comprising father, mother, and children of the ages thirteen, twelve, ten and a-half, nine, three and a-half years, and ten months, may be briefly alluded to. Four years ago the mother and the children, now aged ten and a-half and nine years, had diphtheria. In July, 1883, the mother again suffered from diphtheria, which she ascribed to having been 'poisoned by the stench from a drain.' Shortly afterwards the children, now twelve and nine years old, took diphtheria, and the child three and a-half years fell ill with nausea. Some weeks later a governess came to the house and took the disease, and then also the child of ten and a-half years. Many sanitary improvements were at this time made in and around the house. The lad of twelve years again had a bad throat in January, 1884; he was isolated, and the disease did not spread. The mother again took a violent chill in February, 1885, and she suffered from tonsilar inflammation for some time; she also was isolated, and the tonsilitis did not spread. The tonsils of the children aged ten and a-half and nine years are enlarged, and many of their follicles are full of a white, sticky substance."

Having regard to these occurrences, Dr. Gresswell proceeds:

"Such, then, are the circumstances I commonly found associated with recurrence of diphtheria in *particular individuals.* They and other like experiences met with in my inquiry certainly go to show that an attack of the disease leaves the tonsils in a condition peculiarly reactive to exposure to wet and cold; and further, they raise, I think, suspicion that the virus of diphtheria once implanted in the body may continue dormant therein for a long period, and then once again, under certain conditions, enter as it were on a fresh life of activity and reproductiveness. *A priori* there is no unlikelihood in this. On the contrary, recrudescence in the animal body of the virus of glanders, of syphilis, of ague, of relapsing fever, and perhaps even of scarlet and typhoid fevers, leads us almost to look for it; and analogy furnished in the manifestations of cryptogamic protoplasm is in its favor.

"There remain for consideration the conditions essential to this new life of diphtheria-infection lying dormant in the individual. In the first place, there was in every case that came to my notice a distinct history of exposure to wet or cold shortly prior to the recrudescence. In the second place, there was the fact that persons with a capacity for redeveloping diphtheria have almost without exception inhabited dark, damp, stuffy, and mouldy dwellings, set among a variety of other insanitary conditions, and that these dwellings and their surroundings have remained unimproved from one decade to another. If persistent local insanitary conditions of the above sort may be thought of as being specially adapted to the development of the germ of diphtheria in the environment, or as fostering in individuals continuously exposed thereto the development of a constitution in which the germ of diphtheria is peculiarly able to maintain itself, a reason for repeated recrudescence of the disease in the Erpingham district is not far to seek.

"There are indeed in this diphtheria-infested district many damp, ill-ventilated, and mouldy dwellings which may, it would seem, be regarded as 'abodes,' as 'cultivating grounds' of diphtheria; dwellings which, though the sites of frequently recurring diphtheria, have not been put into proper repair or drained or ventilated, which have not even been repapered, or whitewashed or disinfected; dwellings which have in fact been permitted to retain their unwholesomeness from one decade to another. Facts elicited in the course of this inquiry led me to regard habitations of this particular class as actually, and many others as liable, to become agencies in the development and spread of diphtheria. It must remain an open question whether these dwellings themselves supply the whole of the conditions requisite for maintenance of the material cause of diphtheria, or whether the persons (or perhaps the tonsils) of their inmates become, by reason of sustained inhabitation of these dwellings, modified to the extent of affording exceptionally suitable 'hosts' for the maintenance of this virus. I am much inclined to regard unwholesomeness of dwellings of the sort referred to as at any rate conducing to conservation of the virus of this disease in tonsils that have once become infected by it; and I think of exposure to wet and cold as not more than an exciting cause of fresh growth or recrudescence of it."

In his paper before the Epidemiological Society, Dr. Gresswell referred to the fact that analogy furnished certain warrant for the truth of the views he had expressed. Syphilis, for example, was quoted as a disease which we recognize in its acute phase, and in its chronic and recrudescent phases, without renewed inoculation. Ague manifests its relapses quite independently of fresh exposure to malaria. Glanders in the horse may become chronic and again take on an acute contagious character; relapsing fever is marked by acute relapses believed to be due to varying phases in the life-history of the parasitic organism which is believed to be its cause. So, also, enteric fever and its relapses, the relation of gleet to gonorrhœa, and certain phases of contagious ophthalmia, were referred to in the same connection.

And, proceeding to suggest some explanation of such recrudescences as have been specified, Dr. Gresswell calls to mind the fact that "protoplasm undifferentiated equally with protoplasm differentiated is so constituted that periods of rest are conducive to its well-being, nay, are necessary conditions to the continuance of its individuality," and that these periods of rest are most likely occupied by processes of a physical nature. Indeed, it seems to him justifiable analogy to regard "recrudescence of a disease which is apparently referrable to the life of a parasitic organism as the expression of rejuvenescence of that organism." The point is one of considerable interest in connection with the etiology of diphtheria, and it will deserve the attention of those who meet with occurrences of that disease.

SOAP AS A HYGIENIC MATERIAL.

The general conception has hitherto been that the secretion collecting on the skin, "*die Hautschmiere*," originates in the sweat and also in the sebaceous glands, and that the mixture of dried sweat and sebum covers the skin as "uncleanness."

I have shown, however, in my investigations with lanolin, that the secretion of cholesterine fat, hitherto unknown in the human organism, takes place direct from the tissues containing keratine. The epidermis and also the epidermis of the hair can directly secrete fatty material. According to the earlier views, it was assumed that no formation of fat took place in the epidermis. One imagined the keratine structures, epidermis, hair, nails as properly only consisting of resisting keratine. We now know that to the tissue itself fat comes which is not prepared by the glands, but which is formed within the tissue itself. That under pathological conditions an excessive secretion of the sebaceous glands takes place has been proved by Dr. Lassar.

The secretion may, moreover, attain very considerable dimensions—for example, in the case of wool. In the spines of the hedgehog the epidermis excretes a considerable quantity of fat, while the sebaceous follicles belonging to them are starved.

How large the amount of fatty contents of the horny tissues may be up to the present nothing definite is known. Apparently there may be great oscillations. But the important point in respect to hygiene is the fact that cholesterine or some analogous fat is always present in the horny tissues, although often only in small quantities.

In the question of cleansing of the skin in a hygienic sense, the above-described condition of the skin is to me naturally of the greatest significance.

The skin should undergo cleansing without the chemical, and still more the physiological, properties suffering any change thereby. The skin should remain intact. If it were simply a matter of cleansing a keratine covering of the products that are deposited on it, the use of rather sharp cleansing material would not so much matter; the surface might be slightly cauterized without injury to the lower layers. But if we make use of sharp material the fat is withdrawn from the horny tissue of the hair, the epidermis; the epidermis is destroyed—at any rate, rendered more absorbent; and the lower layers, the stratum lucidum and granulosum, and farther in, the cells are given up to destructive action.

I believe no better example can be given how carefully and delicately the surface only of the horny tissue must be cleansed than to call to mind the processes that are gone through in a wool-cleansing establishment. Here the wool is to be freed from the natural cholesterine fat. The aim of the cleansing is to remove the fat carefully from the hair without attacking the substance of the hair. Even with the employment of soda one has to proceed with the utmost caution, as the wool is easily rendered brittle; the wool cannot then be spun.

In the process of washing, then, only that fat is to be removed that is on the surface of the wool hairs. Free alkali or other sharp chemical substances extract the fat from the keratine tissues, and without it the wool becomes brittle, and therefore unusable. If we keep this point in view, from the very commencement all extracting materials are to be rejected, such as ether and sulphide of carbon, that indeed extract more fat, but which completely lixiviate the horny tissue.

The cleansing of the skin is to be considered in an exactly similar manner. We wish to remove the impurities that are deposited on the skin without attacking the epidermis, and above all the fat contained in the epidermis must not be removed. For this purpose, above all things, a neutral soap is required. There should be no question of dissolving the secretions present on the skin. Soap acts only as an emulsifying agent. It is an old experience that when tar has to be removed from the skin the tarry spot is to be rubbed with fat, because then the soap acts as a better emulsifier on the tar.

Soap should be perfectly neutral, and free from foreign substances or "complimentary" material. I would carefully reject the various kinds of soap in general use as hygienic toilet articles; the only reliable kinds of neutral soap fit for toilet use are those manufactured in accordance with the method published by him in the *Barichte des Vereins fur Gewerbfleiss*, Volume III, November, 1884, in which the impurities and excess of alkali are got rid of by a twice-repeated centrifugal process. For the purpose of securing an excess of fat in the soap I recommended the addition of lanolin.—Dr. Oscar Liebreich in *London Medical Press.*

SCARLET FEVER FROM COW'S MILK

At a meeting of the Epidemiological Society, on April 14, Dr. James Cameron read a paper entitled, "Observations on a certain Malady occurring among Cows at a time when the Milk produced by them disseminated Scarlet Fever," of which the following is an abstract. The author began by stating that he proposed to lay before the Society a short description of a cow disease which had been the subject of investigation by Mr. W. H. Power, Dr. Klein, and himself during a recent inquiry into an outbreak of scarlet fever which occurred in certain districts in London and in Hendon amongst consumers of milk derived from a dairy farm situated within his sanitary district. It was not his intention to discuss the circumstantial evidence which led to the discovery of this disease amongst the cows, or which proved its connection with the milk. These were respectively in the hands of Mr. Power and Dr. Klein. The disease is certainly not a new one; it has been known to some farmers and cowkeepers, at any rate, as a catching malady under the designation of sore teats, blistered teats, and the like; but it has never hitherto been recognized or described as a specific contagious disease amongst cows, or considered to have any concern with the causation of scarlet fever in the human subject, and has commonly been regarded as a malady of little importance. After giving an account of the farm, and speaking favorably of its sanitary condition, the author stated that the disease first appeared in some newly purchased cows, which had arrived about a fortnight before the first cases of scarlet fever occurred among consumers of the milk. It was subsequently ascertained that one of these cows, which was the first sufferer, introduced the disease into the herd, the malady spreading from shed to shed until the whole herd of one hundred cows, with very few exceptions, was attacked: while, coincidently with the spread of the disease among the cows and into the various sheds, scarlet fever made its appearance, and continued to prevail among the consumers of the milk procured from these sheds. Dr. Cameron described the disease generally as a specific contagious disease, occurring usually in the first instance amongst newly calved cows, and capable of being communicated to healthy cows by direct inoculation of the teats with virus conveyed by the hands of the cowman. The disease may continue from four to six weeks, and is characterized by general constitutional disturbance, a short initiatory fever, a dry hacking cough, sometimes quickened breathing, sore throat in severe cases, discharges from the nostrils and eyes, an eruption on the skin round the eyes and hind quarters, vescicles on the teats and udder, alteration in the quantity of the milk secretion, and well-marked visceral lesions. The author then proceeded to discuss the symptoms in detail, and referring to the eruption on the teats and udder, stated that from five to seven days after the commencement of the illness one or more teats became much swollen, and vesicles or bullæ shortly made their appearance upon them. These vesicles are usually rubbed and broken in milking, leaving sores with raised ulcerated looking edges; at this period the disease appears to be easily conveyed to other cows. Shortly after the vesicle has been broken a brown scab forms upon the sore, and this may remain from ten days or a fortnight to five or six weeks, a thin discharge escaping from beneath it until the sore is healed. There is a tendency for the milk to become ropy during the illness, but this is not always present, and as a rule this condition is not apparent until the milk has stood for five or six hours; hence the milk from this farm was distributed before this peculiarity had had time to show itself. After describing the difference between cow-pox and the disease in question, Dr. Cameron urged the necessity for examination of cows and for the removal of all suspected animals from the milk business, and he expressed the hope that the government would see fit before long to institute some means of more effectually protecting the general public against the recurrence of these disastrous outbreaks of disease which are due to milk.—*Lancet*, May 15, 1886.

THE DOCTOR AS PATIENT.

The *Boston Medical and Surgical Journal* says:

The study of medicine and personal devotion to the alleviation of suffering do not insure the doctor against the ills common to all mankind; nor does an intimate acquaintance with the vagaries of the sick enable a physician to pass through his own trials with equanimity. In fact, the doctor is far from appearing at his best in the *rôle* of patient; he feels as much out of place on a sick bed as would a general officer if he were reduced to the ranks. He has been so long accustomed to command that he finds it very hard to obey, at least, without some sort of a protest.

During his student days he was led astray by his imagination, which made him suffer from the ills of which he studied. He probably, at that time, convinced himself of the ease with which one exaggerates his own sensations, and learned to disregard his own feelings for the most part. Only in such a way as this can we account for the neglect in himself of those beginnings of disease which a layman would suppose would infallibly arrest a doctor's attention, as they certainly would in a second person; as it is, he usually disregards his early symptoms and goes about with a temperature higher than that of the patient whom he sends inexorably to bed. He hopes for the best in his own case, as in others, but he fails to prepare for the worst, as he advises his patients to do, for he uses up, by continuing his work, the strength he ought to reserve to carry him through the sickness it needs no angel sent from heaven to foretell. Once fairly prostrate, it is usually the alarmed relatives who summon the doctor, rather than the patient himself.

And it is no light task for the brother physician who presides over his sick bed to care for the prostrate individual, who insists on discussing the method of treatment, and, with a disordered imagination and weakened intellect, desires to sit in judgment on the conduct of his own case. The patient is apt to be skeptical as to the powers of the drug on which his friend and adviser relies. He suspects his friend of a want of candor in his bedside talk. The little talks outside his door, the ruses of his wife to gain a little private conversation with the doctor, excite his anger. He listens for the noise of the wheels after his friend has left the room, and, if the sound of his chariot is too long delayed, he feels sure that the long-suffering man is delaying at the door to tell what he really thinks, and he takes pains to interrupt the conversation by some abrupt message; perhaps, if it happens to be evening, by saying that it is time to close the house for the night.

But if he is critical and somewhat skeptical, he learns to know his physicians by their steps, and even the roll of their carriages on the street; and no patient gives them a more cordial welcome, or parts with them more reluctantly. He feels sure that his memory of their kind attentions certainly must be longer than that of certain patients who, according to the familiar lines, whose truth is too often confirmed by experience, forget even the doctor's face when they have recovered.

He seldom escapes making himself disagreeable to his nurses. It is hard to convince him that it is his own fault that his food does not taste as it ought. He is indignant that his own kitchen cannot produce broth as good as that of his neighbor: but the tales of his own peevishness, when he hears them after recovery, he can but believe are grossly exaggerated.

Nothing is more surprising to the doctor, when reduced to the position of patient, than to find that he himself is subject to like weaknesses as other members of the human family. The nervousness, for which, in others, he has had too little sympathy, shows itself in a thousand ways. The little noises impossible to avoid disturb him, and the children of his household seem most unruly. Most strange of all, and most humiliating in his remembrance afterward, he even calls his doctor for nothing. He wakes from sleep, sure he is going to have a chill, or some equally unpleasant manifestation, and when, with grave face and careful attention, his hastily summoned physician has felt his pulse, taken his temperature, and sought for the signs of any possible complication, to inform him at the end that there is nothing to justify his fears, he admires and is grateful for the patience that has borne with his apprehensions, but he feels great curiosity to know what his doctor says to himself as he goes home to resume his broken sleep; and, most of all, he wonders at himself and mutters, "Is thy servant a dog, that he should have needlessly disturbed a doctor's sleep?"

But especially trying to an invalid doctor is a tedious convalescence. His knowledge of the possible complications and sequelæ gives a wide field of possibilities, over which his imagination wanders uncontrolled, and he is fortunate if he does not become a hypochondriac. He is pretty apt to partake of the lay fondness for talking about the unusual features his case has shown. If he thinks about the matter at all, he finds how difficult it is to know at what length to detail his symptoms to inquiring friends. Unless he keeps his tongue in due subjection, he is apt to realize that few men are really good listeners, and his kind friends, when they are released from his story, may be excused if they say, "Poor fellow, he needs bracing up." But really there is some excuse for him if he is a little garrulous; personal experience of pain is different from looking on, but, interested as he is in his own closer acquaintance with disease, his account of it differs little, in the ears of his medical brethren, from the story they have often heard before.

But a little personal experience of the sick-bed teaches the doctor many things. He certainly learns that a sick man does not look upon things as a well man does, and his charity toward an invalid's whims is greatly increased. He cannot fail, too, to be touched and softened by the many kind inquiries and pleasant messages that come to him. Busy men come and sit down beside him as though the dearest object of their hearts was to see him recover; men who justly plead bodily infirmity as an excuse against the slightest exertion climb his stairs to express their sympathy, and patients who have seemed thankless and forgetful show that they needed only the opportunity to show their gratitude. And, when the sick man resumes his place in life, he is pretty sure to have not merely an increased enjoyment in living, and a better idea of his fellow-men, but also a higher estimate of the value of his own profession."

ON THE SURGICAL TREATMENT OF INFANTS.

It is of the greatest importance, says Dr. Willard, to know thoroughly the anatomy of the child, as the position of organs, and especially the size of organs and canals, differs so widely from those of the adult, and mistakes are very easy. Ether should be used in any operation which gives much pain; antiseptics are essential. The author insists on early attention to congenital defects, and warns against the danger of delay. A rapid sketch is given of his treatment of the common surgical ailments of childhood, to some of which we call attention. Prolapsus ani, where it resists astringents, replacement, and similar measures, must be cured by the production of linear eschars by nitric acid. Epispadias and extroversion should be operated on as soon as the first dentition is complete. Adherent prepuce and phimosis can almost always be cured by separating the adhesions with a probe, which allows the prepuce to be drawn back; circumcision is very rarely necessary. Umbilical and inguinal hernia should be treated early, a truss being applied in the first few weeks of life. Most cases can then be cured. Harelip is operated on at the end of three months from birth; and instead of pins, a double set of sutures are used,—catgut for the mucous surfaces, and silk for the skin. Club-foot should be treated immediately from birth, the foot being brought by manipulation into a position as near the normal as possible, and retained there by splints of felt, leather, or wood, rightly adapted. In the course of treatment the elastic strap is found very useful. In severe cases a subsequent tenotomy is necessary; but it is rendered more easy and effectual by the preliminary treatment. Failure after tenotomy is nearly always due to neglect of manipulation. In treating infantile paralysis, every effort should be directed to restoring power to the muscles and making them do work, apparatus only being used when the power is absolutely lost. Tracheotomy in croup is advocated, and the high operation preferred.—*Philadelphia Medical Times.*

THERAPEUTIC PROGRESS.

Urethran in conjunction with chloral hydrate affected a cure of well pronounced tetanus, in a case reported by Dr. W. T. Jockmam. The urethran was given in four grain doses every two hours.

Solution of Caoutchouc.—According to Beirersdorf, gum elastic can be dissolved in ether by the application of a small quantity of oleic acid. The resulting solution when applied to the skin is more elastic and more agreeable than collodion.

Quinine for Traumatic Neuralgia.—Mr. F. J. Hart reports three cases of injury, two of the shoulder and one of fractured rib and contusions, attended with great pain, which was so severe that full doses of chloral and opium gave no relief, but which yielded to five grain doses of quinine given at intervals of four to six hours.

Hamamelis Virginica.—Drs. Marshall and Wood, of the University of Pennsylvania, after experimentation conclude that hamamelis virginica is not toxic; that it has no special physiological action on the vascular system; and that it contains no alkaloid. They show that it contains a very large percentage of tannic and gallic acid in the fluid extract, and the results which have been obtained are apparently due to the astringent action.

Nitrite of Amyl in Whooping-Cough.—At a recent meeting of the Philadelphia Neurological Society, Dr. Morris Lewis stated that he had exhibited nitrite of amyl with advantage in a case of whooping-cough. The drug was diluted with three times its bulk of ether, and the finger moistened with the mixture held before the child's nostrils at the first respiratory effort. The frequency of the paroxysms was not lessened, but their duration and attending exhaustion were greatly diminished.

For Syphilitic Alopecia.—Mauriac prescribes as a local application in alopecia of syphilitic origin, the following pomade:

℞. Turpeth mineral,	
Sulphite quinine, āā	1 part.
Lard	60 parts.

In treating the rapid exfoliation of dandruff which often accompanies this disorder, he directs the following lotion to be used:

℞. Borax	1 part.
Carbonate of soda	2 parts.
Distilled water	600 parts.

Carbolic Acid for Freckles.—Dr. Halkin suggests that freckles be treated by bathing and drying the skin, applying carbolic acid as a film and allowing to dry. In about a week flakes of epidermis become detached, and the derma soon assumes the natural tint. The "freckle" alone to be touched with the acid.

Ointment for Ciliary Eczema.—Hebra commends the following ointment, when applied morning and evening to the free edges of the eyelids in ciliary eczema:

℞.	Lead plaster,	
	Olive oil, āā	10 parts.
	Balsam of Peru	1 part.

Antiseptic Solution for the Mouth and Teeth.—Professor Müller, of the Dental Institute of Berlin, recommends for this purpose the following:

℞.	Bichloride of mercury	gr. iij.
	Thymol	gtt. iij.
	Distilled water	oj.

Use as a mouth-wash for thirty seconds:

℞.	Thymol	gtt. iv.
	Benzoic acid	gr. xiv.
	Tincture of eucalyptus	f. ʒiij.
	Distilled water	ojss.

Use the same in formula first.

Pastes in Skin Diseases.—Van Haringer recommends the following modifications of Unna's pastes: For eczema, kaolin paste, number one.

℞.	Pulverized kaolin,	
	Glycerine, āā	45.00
	Oxide of zinc,	
	Liq. subacetate of lead, āā	30.0

M.

This paste forms a fluid like cream. When linseed oil is substituted for the glycerine a soft paste is obtained, which spreads easily. In acne he employs the following:

℞.	Sulph. ppt.	75.0
	Pulverized calcium carbonate	5.0
	Oxide of zinc	40.0
	Pulverized amyli oryza	20.0
	Glycerine	40.0
	Aquæ	300.0

M.

—*Monatshefte fur praktische Dermatologie.*

Corn Remedies.—In reply to inquiry the *American Druggist* gives various formulæ for the effective cure of corns as follows:

(1) Gezow's corn cure.

℞. Extract cannabis indica	10 gr.
Salicylic acid	50 gr.
Collodion	1 f. oz.

Mix and dissolve.

It is applied by means of a camel's-hair pencil so as to form a thick coating for four consecutive nights and mornings. The collodion at once covers and protects the corn from friction. The Indian hemp acts as an anodyne, and the acid disintegrates the corn, so that after a hot bath on the fifth day it will usually come out, adhering to the artificial skin of collodion.

(2)

℞. Turpentine	30 gr.
Salicylic acid	45 gr.
Collodion	1 fl. oz.

(3) Bandot's corn plaster.

℞. Resin cerate	600 gr.
Galbanum plaster	600 gr.
Subacetate copper	230 gr.
Turpentine	75 gr.
Creasote	45 gr.

Mix and make a plaster.

(4) Laroche's corn plasters.

℞. Olive oil	30 parts.
Yellow wax	10 parts.
Wheat flour	90 parts.
Acetic acid	60 parts.
Boracic acid	30 parts.
Oil lavender	3 parts.
Vinegar	30 parts.

Mix. Apply to the corn for twenty-four hours.

SPECIAL NOTICES.

The increasing demand for their goods, by the medical profession in foreign countries, has necessitated the Rio Chemical Company, of Saint Louis, to establish offices in London and Paris.—*Medical Brief.*

A. M. Chord, M. D., Logansport, Indiana: Peacock's bromides is a valuable remedy and I can heartily recommend it to the profession where the use of such a preparation is indicated. It fills a place in our list of remedies that has long been vacant. It is all that is claimed for it.

Dysentery.—Some time ago we had an epidemic of dysentery in our community. I tested Kennedy's (dark) pinus canadensis fully, and must say I am well pleased with it, and expect to use it freely in future in cases where indicated.—P. A. Wilson, M. D., Timmonsville, South Carolina.

A Most Palatable and Pleasant Aperient.—The acid mannate I find to be all that is claimed for it—the most palatable and pleasant aperient I have ever prescribed. I have also taken some of it myself, and therefore speak from personal experience.—W. C. Frederick, M. D., Lono, Arkansas.

Maurice Hache, M. D., 8 Rue de Tournon, Paris, May 18, 1886, says: I have tried bromidia in two cases, one patient suffering from a slight febrile affection, the other a victim of acute insomnia; in the latter case various preparations of opium had proved useless and the administration of chloral was followed by lassitude and congestion in the head. Bromidia produced sound sleep in both of these cases, unaccompanied by any unpleasantness on awaking. In my opinion this preparation is destined to render good service, and I intend prescribing it whenever the opportunity presents itself.

Chronic Starvation.—Upon whatever other points they may differ, authorities on dietetics agree that nitrogen is the most essential of all foods, and that a certain amount should be taken regularly. Diminution of the quantity of food, whether from inability to procure it, or a disinclination for it, generally means decrease or absence of nitrogen. That this leads to dire results is a well established fact. Graily Hewitt, in an address on "Chronic Starvation and Delicate Females," before the British Medical Association, said: "For the last ten years or more I have carefully inquired into the history of patients suffering with uterine and ovarian disease, or some affection incidental to child-bed, and I have found a continuous insufficiency of food, especially the nitrogenous, to have existed almost universally, so that I have naturally come to regard this chronic starvation as an important factor in disease." The serious troubles arising from insufficient nourishment are also shown in a marked manner in the case of delicate females during gestation, a large proportion of whom are so enfeebled by the constantly recurring paroxysms of vomiting and the consequent diminution of food assimilation, that when the period of parturition arrives they are so reduced in strength as to be peculiarly susceptible to the attacks of disease incident to childbirth, and the offspring is ushered into the world puny and feeble, and especially liable to a complication of physical evils solely attributable to its starved and anemic condition. Colden's liquid beef tonic contains precisely the elements indicated by Dr. Hewitt as being so essential, combined with citrate of iron, cinchona, and simple aromatics, forming at once a palatable nutriment and reliable tonic, and its range of usefulness embraces all cases of debility of whatever origin. It has been in use fifteen years, and those who have used it most are most emphatic in its praise.—*Massachusetts Medical Journal*, Boston.

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. OCTOBER, 1886. NUMBER X.

ORIGINAL ARTICLES.

OBSERVATIONS ON RECENT INVESTIGATIONS MADE AT THE COLLEGE DE FRANCE.

BY WILLIAM VIGNAL, M. D., PARIS, FRANCE.

THE PHYSIOLOGICAL ACTION OF PILIGANINE.

Piliganine is an alkaloid which is present in *lycopodium saururus*, commonly known as piligan, or pilijan. Dr. Bardet, chief of the therapeutical laboratory of the Cochin hospital tested the effect of an infusion of piligan, and observed that it acted as an energetic emetic and produced general symptoms which indicated that it is not a suitable therapeutic agent. A chemical examination proved that this plant contained a special kind of resin and an alkaloid which M. Bardet calls piliganine. This alkaloid was isolated by M. Adrian, who gave M. Bardet two grammes of chlorhydrate of piliganine. This investigator made experiments with it on a dog, rabbit and frog, and concluded from the resulting phenomena that piliganine acts as a poison, and that its power is principally exercised on the nerve centres, the medulla oblongata, and the pneumogastric nerves.

INTESTINAL LESIONS DUE TO THE ACTION OF CORROSIVE SUBLIMATE.

Since corrosive sublimate (mercuric chloride) has been so generally used in surgery and especially in obstetrics, the attention of medical men has been attracted to the different intestinal lesions which have fallen under their notice. A collection of clinical notes demonstrate that mercuric chloride can produce deep lesions in the large intestines. Complex clinical facts may be interpreted in different ways, and therefore have not furnished convincing proof. Some authors suppose that in cases of parturition the visceral lesions are due to the septic condition existing in the patient, and that the salt of mercury is not a factor. Experimental data, especially those obtained by Prevost's experiments described in the *Revue Medicale de la Swisse Gournaele*, 1882, page 553, indicate that visceral lesions often result from the effect of corrosive sublimate. Similar lesions to those observed in patients were experimentally provoked in animals, ecchymosis and hæmorrhage, but neither gangrene nor ulceration were observed. M. M. Charrin and Roger used an aqeous solution of corrosive sublimate at one per one thousand and one per four thousand, which was injected under the skin or into the veins. This last method requires smaller doses. After injecting two milligrammes under the skin of a guinea pig weighing five hundred grammes, several ulcerated areas were observed: an injection of five milligrammes given in the course of eighteen days or three milligrammes in six days were powerless.

These animals experimented on by M. M. Charrin and Roger did not present during lifetime any important symptoms of intestinal lesion; they grew thinner, had albuminuria, but rarely diarrhœa, and never intestinal hæmorrhage. When the dose of mercuric chloride was weak the animals did not succumb to it. They were killed at successive periods in order to follow the evolution of the lesions. It was observed that these were localized in the large intestines and especially in the ascending colon and cæcum. Sometimes the ileo-cæcal valve was attacked and the terminating portion of the ileum. The earliest lesion consists of small spots of hæmorrhage dotted about on the intestinal mucous membrane, the peritoneum, the omentum, the outer surface of the kidneys, and especially in the pulmonary tissue. At a later stage these spots of hæmorrhage become small ecchymoses presenting the aspect of lines parallel to the axis of the intestines, varying in length from three to four centimetres; later on, ecchymosis is more extended and the central portions slough away. A black eschar is formed which gradually falls off and leaves an ulcerated spot. The contiguous portion of the peritoneum sometimes presents inflammation. Intestinal perforation has never been observed by these investigators.

The principal lesion which occurs consequent on administering corrosive sublimate, is apparently hæmorrhage which slightly tumefies the intestinal mucous membrane, and thus disables it from action as a factor in the process of nutrition. This hypothesis is verified by microscopical examination which revealed the presence of spots of hæmorrhage in the areolar tissue. The mucous membrane becomes detached and sphacelus without any glandular change taking place, as might be supposed would result from the elimination of the poison. These facts in experimental physiology applied to human patients indicate that a dose not exceeding twenty-four centigrammes of corrosive sublimate is necessary to produce intestinal ulceration in a man of sixty kilogrammes, or a dose of sixty centigrammes given in the course of five days, but the result is not constant, unless sublimate is given in hypodermic or venous injections. It remains also to be proved that the human susceptibility to the influence of this substance is the same as that of the lower animals, and some clinical facts suggest that smaller does of corrosive sublimate act on the human subject and provoke intestinal lesions; nevertheless, M. M. Charrin and Roger do not consider that the possibility of these accidents ought to be urged as a reason for proscribing the use of corrosive sublimate as an antiseptic agent.

ON THE ANTISEPTIC ACTION OF BILE.

Many scientists believe that bile acts as an antiseptic agent on the figured ferments of the intestines. Clinical facts appear to support this hypothesis for in icterous patients when the bile does not flow into the intestines, intestinal putrescence increases. M. M. Charrin and Roger have endeavored to study the direct action of bile on the microbe observed in the upper part of the small intestines. Fresh bile intact added to sterilized broth does not prevent the microbes referred to from developing, if the proportion of sixty-six cubic centimetres of bile per litre of sterilized broth be observed or even if bile be in a larger proportion. These artificial cultivations become turbid, emit a fetid odor, and if slightly shaken, gases collect on the surface. If instead of intact bile, some of its component elements are used, it is observed that each separate constituent of the bile exercises a different action. Biliary salts are more energetic in their action than bilirubin: this is especially true of taurocholate. The antiseptic properties of bilirubin are very slight. Cathine and cholesterine are apparently inert as antiseptic agents. Intact bile is less energetic than its constituent elements taken separately. Bufaline came to the same conclusion after studying the action of bile and its constituent parts on ferments

A NEW FACT CONCERNING SUGAR-TESTING IN BLOOD.

M. Quinquand, at a recent meeting of the Biological Society stated that having ascertained that there are several errors in the existing method of testing blood for sugar with the usual reagents, he has modified the system of analysis and uses icthyocol. He has obtained precise results, and ascertained them from that the proportion of sugar contained in the blood is inferior to that stated by C. Besnard.

HYPERTHERMA AND LOCAL ELECTRISATION.

At the same meeting M. Quinquand stated that he had succeeded by means of local electrisation of a group of muscles in a dog in increasing the central temperature to such an extent as to produce death in a short time. The blood carried back by the veins of the region thus stimulated, contains less sugar than the blood in the veins of the corresponding group of muscles on the opposite side of the animal, therefore, animal heat can be increased experimentally and the resulting physiological phenomena carefully studied. M. Quinquand's experiments have apparently furnished a therapeutic means of increasing the temperature of patients.

ON A CASE OF PURPURA HÆMORRHAGICA.

BY JOHN MADDEN, M. D., ASHLAND, WISCONSIN.

A. J. H., aged twenty-seven, American, unmarried, and a carpenter by trade.

First saw patient August 4. He is a strong muscular man, has always been in excellent health; parents, brothers, and sisters all alive and free from any trace of hereditary disease. About a week before consulting me, patient noticed a small "blood-blister" upon his lower lip. Thinking that it was caused from smoking, he abandoned his customary indulgence. Successively there appeared ecchymoses and blisters upon the hands, arms, and mucous membrane of the mouth. An examination of the oral cavity disclosed the presence of numerous pin-head—to split-pea—sized blood-blisters upon the inside of the lips, the buccal mucous membrane, the tongue, tonsils, and posterior wall of the pharynx. The extravasations upon the extremities took the form of ecchymoses, varying in size from minute specks to that of a silver half dollar, many of which were characteristically colored by age.

The urine was large in quantity and bloody. Amount secreted from 10 P. M. to 7 A. M. ten ounces, fifteen or twenty per cent. of which was blood. A microscopical examination showed a large number of unaltered blood corpuscles, but no free hæmoglobin, casts, nor epithelium debris. The following prescription was given:

℞.	Ergotine	ʒjss.
	Sulphate of iron, exc	grs. xlv.
	Sulphate of quinine	grs. xxx.

Misce et ft. pil. number thirty. Sig. One t. i. d.

August 6: Amount of blood in urine much less.

August 7: Amount of blood diminished to a trace.

August 8: Blood in urine entirely gone.

Patient is now, apparently, in perfect health. During the whole course of the disease the patient complained only of feeling "a little weak," and having some slight pains in the region of the kidneys. There was no temperature changes and the digestive functions were unimpaired.

CLINICAL LECTURES.

ABSTRACT OF CLINICAL REMARKS ON A CASE OF LOOSE CARTILAGE OF THE KNEE-JOINT: WITH OPERATION AND RESULTS UNDER LYSTERISM.

BY T. J. SULLIVAN, M. D., ANN ARBOR, MICHIGAN.
Surgical Assistant in the Department of Medicine and Surgery of the University of Michigan.
REPORTED BY WARREN B. SEXTON, M. D., ANN ARBOR, MICHIGAN.

Alonzo B., aged twenty-two years, was admitted to the hospital April 29, 1886, and gave the following history:

About nine years ago while kicking at a foot-ball he missed it, and injured the left knee-joint so severely that it was impossible to use the limb, and in consequence had to be carried home. The pain at the time of the accident was very severe, and was followed by tenderness and swelling. This passed off, and he was up and about in two or three days. In a few months after, while at work on a raft, he was suddenly taken with pain and inability to move the joint. By some slight movement the pain disappeared and the limb could be moved quite freely, but the joint was swollen and pained for several days. Again in a few months the same set of symptoms were repeated, but by this time he had learned to put the joint through certain movements, which enabled him to get up and walk. There was not as much soreness and swelling this time as on former occasions. While walking if he should stub his toe he is apt to fall suddenly, the knee-joint remaining in a fixed position and very painful. By a few movements the disability to use the limb is relieved, and each attack is always followed by some soreness and swelling. The symptoms just described have occured at intervals of a few months for the last nine years.

This difficulty has been diagnosed as sub-laxation of the interarticular fibro-cartilage of the knee, but if it was, there could be no movement of the joint until the cartilage was replaced; while in this case a slight movement of the limb is often sufficient to remove the disability and allow natural movements of the joint. While in the ward this morning before a section of the class we had no difficulty in locating a movable body at the inner side of the patella, and holding it there until several had examined it.

Loose cartilages in the joints can be divided into two classes: First, those which are broken off from the articular surface—are smooth on one side, but exhibit a broken bony surface on the other—such which we will be likely to find in this case; second, those which are new formations, and are either bony, cartilaginous or calcarious in character. John

Hunter supposed these might orignate in a joint by the organization of a blood clot. Sir James Paget ascribes them to a "quiet necrosis" following a local injury and separation of the cartilage. Mr. Shaw records a case in which a broken needle formed the nucleus. Others have shown that the synovial fringes may hypertrophy in chronic rheumatism, and then become detached. They occur singly, although there is a case recorded in which several hundred were removed from a single joint.

There are two plans of treatment which we may resort to: First, by confining the cartilage to the inner side of the patella and holding it there by a bandage or elastic knee-cap until it is disposed of by absorption; second, by removal either by the direct or indirect method. In this case the patient has had too much trouble to resort to the first plan, and we will consider the next. By the indirect method a narrow bistoury is passed through the skin and then carried under it about two inches, at which point the synovial membrane is punctured. The cartilage is then pressed out at the latter opening and left underneath the skin to undergo absorption. This we will not entertain on account of its very uncertain results. By the direct method an incision is made at the inner border of the patella into the joint cavity, and the foreign body removed. The dangers which a patient is apt to encounter with either of these operations are loss of life or limb, suppuration, tetanus and anchylosis. To avoid, if possible, any of these dangers, and to demonstrate a Lysterian operation, the skin will be thoroughly cleansed, the spray and all of Sir Joseph Lyster's dressings will be used.

To facilitate the operation we will not give chloroform, but will ask Dr. Hendricks to inject ten minims of a four per cent. cocaine solution at a point near our proposed incision.

In this operation you have seen one of the benefits of local anæsthesia. When the cartilage disappeared, if the patient had been under a general anæsthetic, the operation could not have been completed. But being possessed with full consciousness he in a short time had the cartilage under the place of incision. The patient admits of but slight pain, and if there had been no interruption I doubt if he would have experienced any. The cartilage, as anticipated, shows a rough bony surface.

May 17: The dressing was changed before the class, the spray being used and sutures removed. Wound healed by first intention—no sign of irritation about the joint. There was but a slight elevation of temperature following the operation, and no suffering experienced by the patient.

May 20: Patient walks about the ward. There is no pain but some slight stiffness, due to the confinement of the limb in a straight position during the past few days. Discharged cured, and left the hospital.

ORIGINAL TRANSLATIONS.

FRENCH LITERATURE.

TRANSLATED BY F. B. FLORENTINE, M. D., SAGINAW CITY, MICHIGAN.

GUMMATES OF THE PENIS.

Gummates of the penis are little known in spite of the indications of them that have been given by Drs. Fracastor, J. L. Petit, Ricord, and others, but they have generally compared them to gummates of other portions of the body. Willing to make a more special study of it, Dr. Brégéat, in a recent inaugural dissertation (1886), has exclusively concentrated his researches upon gummates of the penis by making known a dozen observations collected in the service of M. Fournier, at Saint Louis hospital—after Dr. Brégéat:

Gummates of the penis are small tumors that are primarily solid and seated in the mucous membrane, under the mucous membrane, or in the subcutaneous cellular tissue. They form kinds of nodi, circumscribed induration, closely resembling the induration of the infecting chancre or dry plates of induration that we often encounter upon different portions of the penis. These tumors later grow softer and ulcerate; it is moreover in this state of gummous ulceration that it simulates other venereal or cancerous affections with which we might easily confound, if we did not absolutely keep account of their objective characters; they eliminate, little by little, a sort of fleshy, plump, cores, and completely repair themselves after awhile. Dr. Brégéat divides the gummates of the penis into four categories, as follows, namely:

(1) Gummates of the sheath and prepuce.
(2) Gummates of the gland.
(3) Gummates of the urethra.
(4) Gummates or nodi of the cavernous bodies.

They pass a period of crudity, of softening, of ulceration, and reparation. Their structures are as follows—after Cornil: While in a state of crudity, we perceive that the bundles of fibres of the conjunctive tissue are separated by rows of round partitions; the tubes of the glomerules and sudoriparous glands are surrounded with it, the adipons islets are equally invaded. More deeply in all the extent of the gummous tissue, the bundles of fibres are isolated by masses of cells disposed with a certain regularity around them. The vessels are also surrounded by the same cells, but the elastic fibres are not modified by it. Little by little the capillaries present in their interior, round and detached, swollen, endothelial cells; and we also frequently see coagulations of fibrin and lymphatic cells. In the softening state, the cellular elements become granulo-fatty-like, the bundles of the fibres of conjunctive tissue dissolve; the elements heretofore firm, between the resisting fibres, are now easily displaced, and the tumor is becoming softer. The layers of the skin are infiltrated with the same elements, and there is, at last, perforation.

Whenever the gumma is opened, we find that the parietes of the gummous cavity are formed by a sort of sclerosed tissue, which is quite resisting. The core, which is little by little evacuated, is formed by sheaves of conjunctive tissue, more or less dissolved, and strangulated by a quantity of cells; it breaks away in a filaceous *débris* and is slowly destroyed under the influence of the liquids coming from the parietes of the cavity. The reparation period simply consists in a budding-like of the embryonic conjunctive tissue starting on all the surface of the cavity and generally filling quite rapidly.

The gumma takes about six or eight months to spread over its various stages; sometimes its evolutions are a great deal more rapid, especially if influenced by treatment. We can say that it is quite difficult to assign a fixed duration for the two first periods, but the ulcerative and reparative periods are nearly always of short duration.

The following two observations permit to follow clinically the character, march and termination of these gummates:

FIRST OBSERVATION—GUMMA OF THE CROWN OF THE GLAND.

Phil. V., aged thirty, enters the hospital Saint Louis, November 14, 1885, in the service of Professor Fournier. Nothing to note in his hereditary antecedents. He pretends having had scarlet fever during his infancy; since that time he has always enjoyed good health. In 1875 he contracted gonorrhœa, and had at the same time soft chancres. Up to October, 1883, the patient had no further venereal accidents, but at that date the beginning of syphilis made itself known by an indurated chancre upon the *corona glandis*, *pleiade ganglionnaire* of Ricord, roseola, numerous scabs upon the scalp, alopecia, mucous sores especially on the tongue, appearing consecutively without presenting any particular character. The patient took, for a whole treatment, but sixty pills of Ricord; he treated the mucous spots with nitrate of silver and chlorate of potash. About a month before he entered the hospital he noticed a little hard, induration upon his penis, but, as it was painless and bothered him none, he paid no further attention to it. But this tumor ulcerated at three different points, that soon united and caused the accidents that we notice to-day.

The Actual State.—At first sight we could not better characterize the aspect of the penis than to compare it according to the expression of M. Fournier, to a *battant de cloche* (tongue of a bell); the roots of the penis appear to be small, while the gland is swollen and the prepuce drawn up and threefold larger. This paraphimosis occasions a great deal of pain to the patient, especially if we exercise certain pressure upon the prepuce in order to ascertain the extent of the ulceration. Upon the crown of the gland, at the left of the frænum, we discover an ulceration; its borders are reddish, well defined, steep, not painful, and we can plainly feel a characteristic induration that occupies all the circumference, if pressed between the fingers. The bottom is excavated and emits a kind of sanious pus, which is quite abundant. The ganglions of the groins are all indemnified with engorgement. Miction and erections are very painful. The general state is good.

Treatment.—Prolonged baths every day; iodoform dressings; iodide of potassium, four grams.

November 21: Quite notable improvement; the inflammatory accidents have disappeared; the penis has returned to its normal volume, but the prepuce is as yet a little œdematous. The ulceration has a better aspect; its gray bottom has become red, following the expulsion of a quite large core. Inoculation practiced upon the right arm was completely negative.

November 28: We notice around the ulceration a cicatricial zone, well marked; the bottom of the ulcer has considerably raised, and looks well.

December 7: The ulceration is cicatrized; there is but a slight leaking at the centre.

December 12: The patient is discharged, cured. The cicatrix is whitish, slightly indurated.

Remarks.—The soft chancre, the indurated chancre, and the gumma, each evoluted at remote periods, exactly at the same place, that is to say, upon the crown of the gland, to the left of the frænum of the penis.

SECOND OBSERVATION—GUMMA OF THE SHEATH OF THE PENIS.

Arthur B., works in leather, aged thirty, presents himself at the clinic of Professor Fournier at the hospital Saint Louis on the 5th of December. No hereditary antecedents. He enjoys good health and never was sick. Good constitution, but is given, at times, to spirituous liquors. In 1879 he had an indurated chancre, situated on the chin, which shows marks of it to the present time. Roseola, mucous patches upon the tongue and anus, and ulcerations upon the testicles were the only manifestations of syphilis that the patient observed during three months. In 1883 he contracted gonorrhœa, and had a bubo, at the same time, in the right groin; the latter was opened with a bistoury and rapidly healed. The patient relates that he was obliged to enter the hospital du Midi at different times for numerous mucous patches that always had as a special seat the buccal cavity and the tongue. He always smoked a great deal. While sojourning at the hospital du Midi, he took protoiodide of mercury pills; the mucous patches were cauterized, and he would leave the hospital generally as cured. He never took any other medicament than what he has taken while in the hospital.

The Actual State.—Arthur B. presents numerous scabs upon his scalp and he is losing hair. Upon the left side of his tongue we notice an ulcerated gumma, about the size of a franc piece; it is quite excavated, irregular, and of a grayish appearance; the induration extends all over the left side of the tongue. This ulceration has existed for a month and increases gradually in depth and circumference. The patient always smoked a great deal. When he presented himself to the clinic he pretended having a chancre upon the penis that did not seem to heal. After carefully examining the character of this supposed chancre, M. Fournier did not hesitate in diagnosing it a gumma of the sheath of the penis. This gummous ulceration is seated upon the anterior middle third of the penis; it is about the size of a twenty-five cent piece; its borders are steep and indurated; the bottom not much excavated, and contains a whitish core. We found no other lesion of the penis; there is no inflammatory reaction, and it is absolutely painless. The ganglions of the fold of the groins are quite enlarged; judging from what the patient says, he must have been in this state ever since the appearance of the primitive accident.

Treatment.—Prolonged baths; rest; dressings of *tuffetas de Vigo;* iodide of potassium, four grams.

December 9: Notable improvement of the gumma of the tongue; the patient did not smoke again. The gummous ulceration of the sheath of the penis is but slightly modified.

December 12: There came out from the gumma of the penis a thick granulous liquid: the bottom is changed to a reddish color. The induration of the borders seems to be considerably less. The patient did not rest, as requested, but kept right on working; therefore it is likely for this reason that he does not improve any faster. As the patient never came back to the clinic again, we are at a loss to know how his gumma of the sheath of the penis evoluted.

Whenever we can follow the march of these gummates from the beginning, and follow their evolution, the nature of the lesion is not easily mistaken; but whenever we observe them in the middle of their course, the diagnosis is more difficult. The soft chancre, the indurated chancre, scrofulous or tuberculous gummates may simulate the specific gummous ulcer, and this might cause grievous consequences in point of view of treatment. The treatment is the same as for the tertiary period of syphilis, with appropriate local treatment.—*Paris Medical.*

GENITAL APPARATUS AND SPERMATOZOIDS IN OLD MEN.

Dr. E. Desnos has seen crowned by the l'Academie des Sciences (prix Godard, 1885), very minute researches in regard to the subject in question, in which the following are the conclusions arrived at:

(1) The liquids, pent up in the seminal vesicles of old men, contained spermatozoids in one-half the cases observed by us.

(2) Age considered in an absolute manner, does not exercise a direct influence upon the presence or absence of these elements. And it is even probable that the limit of the age cannot be fixed, beyond which we cannot encounter them. This fact, already announced by Drs. Duplay and Dien, is confirmed by what we observed in an old man of ninety-four years, in whom we have found spermatozoids in quite large numbers.

(3) In the great majority of cases, the absence of spermatozoids of a vesicle is due to the obliteration of the corresponding seminal ducts.

(4) This obliteration is rarely seated in the spermatic duct; ordinarily the channels of the epididymis are obliterated, oftener towards the tail.

(5) Their obliteration seems not to depend upon the age, nor to the atheromatous state of the arteries, nor to a peripheral effusion of the liquid, but the main cause recognized is an exaggerated development of the veins of the cord, in particular of the posterior bundles of the fumenlus.

(6) This venous dilatation commences at an early advanced age (sixty to sixty-five, and sometimes earlier). It proceeds in the peri-epididymic veins and then gradually to the cells of the parenchyma.

(7) There result, at first, a mechanical obstruction of the spermatic ducts; but sooner or later a crowding upon each other of the epididymic conduits is produced, and atrophy is the last term of this *processus*.

(8) The testicle of the old man is atrophied; divers causes may be invoked: it may be caused by the dilatation of the veins of the anterior fasciele of the cord, but especially to an overflow of serum in the *vaginale*, which is quite frequently the cause with old men.—*Union Medicale.*

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

SERVICE OF DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY WILMOT F. MILLER, ANN ARBOR, MICHIGAN.

CANCER OF MALE BREAST.

Mr. M. C., aged fifty-four. Entered hospital March 25, 1886.

History.—Three years ago a small growth appeared in right breast. It was about as large as a hazel-nut when first noticed, and grew slowly until April, 1885, since when it has grown more rapidly, and is now two and one-half inches in diameter. It is red and angry-looking; hard to the touch but movable upon the deeper tissues. No evidence of constitutional infection present. Family history good.

Clinic.—The growth was removed with the surrounding skin and tissue down to the pectoral muscle. Owing to the natural tension of the skin on the male breast the edges of the wound could not be coapt. By means of button sutures the edges were brought within two inches, leaving a wide surface to heal by granulation. Prognosis good.

April 4: Skin-grafting to fill granulating surface begun. Wound granulating well. Iodoform is dusted over the surface.

April 20: Dismissed cured.

MALIGNANT TUMOR OF LOWER JAW.

R. B., aged seventy-three. Admitted January 23, 1886.

History.—An enlargement began in his left inframaxillary region last June. It was small, well defined and freely movable. The growth gradually increased in size and became attached to the jaw-bone, which then became involved, the swelling increasing both internally and externally. The growth is hard, ill defined and unmovable, and appears to involve the whole ramus of the jaw. It pains him considerably at times, which is relieved by hot applications. During the last two months it has grown more rapidly than heretofore.

Clinic.—January 25: This is the second case which I have seen, with a reliable history, where a growth at first separate and simple has become attached to and involved the inferior maxilla. The other case was operated upon successfully, removing more than half the maxilla. In this case the illy-defined outline of the tumor, and its rapid growth points plainly to malignancy, and the probability is that the surrounding textures are so thoroughly infiltrated that removal would be an anatomical impossibility. But even supposing its removal to be anatomically possible, there is another reason that would prevent operation, that is his age. Again, an operation, even if successful, would not prolong life to any great extent, and it might, in his debilitated state, cause rapid death. His downward course is certain and rapid; the most that can be done is to make it as easy as possible.

GENERAL CORRESPONDENCE.

HEALTH IN MICHIGAN DURING AUGUST.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of August (four weeks ending August 28, 1886), as follows, the diseases being arranged in the order of their greatest area of prevalence:

Diarrhœa, rheumatism, intermittent fever, neuralgia, cholera morbus, consumption of lungs, dysentery, cholera infantum, bronchitis, remittent fever, tonsilitis, whooping-cough, inflammation of bowels, erysipelas, inflammation of kidney, typho-malarial fever, typhoid fever (enteric), diphtheria, influenza, pneumonia, scarlet fever, measles, inflammation of brain, puerperal fever, membranous croup, cerebro-spinal meningitis, and small-pox.

For the month of August, 1886, compared with the preceding month, the reports indicate that dysentery, diarrhœa, cholera infantum, and cholera morbus, increased, and that neuralgia and bronchitis decreased in prevalence.

Compared with the preceding month the temperature in the month of August, 1886, was slightly lower, the absolute humidity was slightly more, the relative humidity and the night ozone were more, and the day ozone was about the same.

Compared with the averge for the month of August in the eight years, 1879 to 1886, intermittent fever, remittent fever, influenza, consumption of lungs, dysentery, bronchitis, and typho-malarial fever, were less prevalent in August, 1886.

For the month of August, 1886, compared with the average of corresponding months for the eight years, 1879 to 1886, the temperature, and the absolute humidity were about the same, the relative humidity and the day and night ozone were more.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of August, 1886, at forty-seven places, scarlet fever at twenty-eight places, typhoid fever at forty-one places, measles at twelve places, and small-pox at two places.

Reports from all sources show diphtheria reported at twelve places more, scarlet fever at six places more, typhoid fever at twenty-four places more, measles at two places more, and small-pox at the same number of places in August, 1886, as in the preceding month, July, 1886.

HENRY B. BAKER, M. D., Secretary.

LANSING, September 2, 1886.

EDITORIAL PERISCOPE.

AMPUTATION AT THE HIP-JOINT FOR MORBUS COXÆ: WITH A CASE AND A SPECIMEN.

The following paper read by Professor Donald Maclean before the Surgical Section of the American Medical Association (*Journal of the American Medical Association*) shows that in these worst cases of hip-joint disease when there is no reasonable hope from all other procedures, amputation offers an avenue for escape from impending death:

The points which I desire especially to enforce by the following case are:

(1) That there are cases of hip-joint disease which, though utterly desperate so far as all the ordinary procedures are concerned, may still be rescued and restored to health by the extreme measure of *amputation at the hip-joint.*

(2) That the operation of resection, if performed at all, should be performed at a much earlier stage of the disease than has hitherto been customary.

(3) That with proper precautions, the operation of amputation at the hip-joint for disease is a safe and satisfactory procedure.

Case.—C. S. B., aged seventeen, from Muncie, Indiana, came to my public clinic at the University of Michigan, January 5, of the present year, and in response to inquiries made the following statement:

Eight years ago, he fell on the ice and sustained a contusion of the left hip. Still, it was not until the following winter that he became so much disabled as to require the aid of a cane in walking. Liniments and electric baths were prescribed at that time, but of course they did not do any good. Two years later extension by means of the weight and pulley was resorted to, also an extension splint, but in spite of these very judicious and rational measures the disease continued to progress.

Eighteen months ago an abscess formed in the region of the trochanter major and was opened. Before long an abscess formed on the inner aspect of the thigh and was opened. From these abscesses sinuses resulted, which have continued to discharge ever since. At the time of his admission into the University Hospital, the discharge from these sinuses was not extremely profuse, but it was intensely fetid. He was greatly emaciated, and suffering from marked hectic symptoms. The thigh was flexed to a right angle with the trunk, and there was no movement discoverable in the hip-joint. The knee-joint was also flexed and partially anchylosed. All the muscles of the limb were contractured and atrophied. Under these circumstances resection of the joint was at once and for obvious reasons excluded. In short, it seemed that the choice lay altogether between one or the other of the two following alternatives:

(1) *Expectancy*, which of course promised only speedy exhaustion.

(2) Amputation at the hip-joint, and this operation commended itself to my mind as a justifiable and even hopeful expedient, provided, *first*, that the pelvic bone should on examination prove to be fairly healthy—that is to say, not too far involved in the carious affection; and *second*, that the general

powers of the patient's constitution had not been too thoroughly undermined by the long-standing and exhausting disease. The proposition having been fully explained to the patient (a most intelligent young man), he eagerly assented and placed himself in my hands.

The final decision as to the condition of the os innominatum was reserved till the time of the operation, and had it been found too far diseased the completion of the operation would have been abandoned as useless and unjustifiable. Fortunately, no such reason for the abandonment of the operation was met with. The disease was confined entirely to the acetabulum, and even there was quite superficial and small in extent.

So far as the strain on the patient's weakened powers was concerned I succeeded in convincing myself that, provided due precautions against hæmorrhage and shock were used, he would be able to weather the storm. With this object in view I determined to use a simple and somewhat primitive form of aortic compressor: an instrument made under my own directions some years ago by a common blacksmith, and which has afforded me indispensable aid in a considerable number of instances.

The operation was performed on March 1, 1886, under chloroform. Hardly a drop of blood was lost. The patient was only a few minutes on the table. The degree of shock was slight.

The wound was treated antiseptically throughout and healed rapidly, so that on April 9 the patient was able to return to his home in a better state of health than he had known for several years. Reports received up to the present time have been altogether favorable. I now present for inspection by the members of the Section the femur of this patient. It will be observed that the disorganization of the medullary canal extends *from the one end of the bone to the other*. Also, that the head of the bone is very nearly all absorbed away. A single glance at this specimen is sufficient to determine effectually the question of the propriety of the operation; or at least the utter hopelessness of the case without this measure.

Finally, I think we may safely deduce from this case the general principle that if resection of the hip-joint is to afford permanent satisfaction, it must be performed at a much earlier stage of the disease than has heretofore been customary; that is to say, while the disease is limited to the head of the bone, and before the medullary canal of the femur has become involved, which it is certain sooner or later to do.

FUNCTION OF THE RECURRENT LARYNGEAL NERVE.

A most interesting communication detailing experiments to determine the mode of action of this nerve, is made by Dr. Donaldson, in the July number of *American Journal of Medical*

Sciences, which throws much light upon this much argued question. The experiments, results and conclusions of Dr. Hooper are reviewed. The results of these experiments apparently confirmed the theory, "That the constrictor functions of the larynx are dependent upon consciousness;" and the conclusions drawn from them are briefly stated as follows:

That stimulation of the recurrent laryngeal nerve always produced abduction of the arytenoid on that side provided the animal was deeply under ether; that on removing the anæsthetic, the dilatation produced by stimulation became less and less as the animal regained consciousness, until finally contraction of the glottis followed; and that the abduction differed in different dogs. These effects were noticed when the dogs were under morphine, chloral and chloroform, though not to the same extent when under ether. In other words he concludes that the tendency of the glottis is to remain widely open, and that any given stimulus from the recurrent nerve would act upon the abductor muscles alone unless volition came into play, when the stimulus would exert the opposite effect and produce abduction.

From Hooper's theory and conclusions, Dr. Donaldson undertook to test the following points:

(1) Is it true that the constrictors cease to act during profound narcosis, or when consciousness is suspended from any cause?

(2) Do we, as Hooper says, always get abduction of the arytenoid (dilatation of the glottis) on stimulation of the recurrent nerves, when consciousness is suspended?

Dr. Donaldson made nine experiments upon dogs, from which he drew the following conclusions:

(1) That the constrictor muscles of the larynx *do not cease to act during profound narcosis or during suspension of consciousness* from any cause; or in other words, that their action is not dependent upon volition.

(2) That we do not always obtain abduction of the arytenoids when consciousness is suspended, as argued by Dr. Hooper.

The question was then raised: Under what conditions then do we get abduction of the cords upon stimulation of the recurrent nerve? Such conditions must exist, for abduction of the cord has been obtained by Hooper, who considers that suspension of volition is the one condition under which stimulation of the recurrent nerve brings about abduction. The conditions under which these abductors act, Dr. Donaldson partly discovered in the next series of experiments. In them it was found:

(1) That the abduction obtained by Hooper was not reflex.

(2) That abduction is in no way dependent upon the unconsciousness of the animal as held by him.

(3) That it is with weak stimuli only that abduction of the cords takes place, which movement of abduction gradually passes into one of adduction as the strength of the stimulus is increased.

(4) That this result invariably followed whether the animal was slightly, deeply, or thoroughly narcotized; whether the animal was eupnœic or apnœic, when the dog had his medulla destroyed and after local death had taken place.

(5) That the rate of stimulation did not affect the general result.

(6) That after strong and constant stimulation the abductor muscles became worn out and ceased to answer to stimuli.

(7) That in apnœa the cords came nearer the middle line the abductors received no stimulus in this condition from the respiratory centre.

Here, then, Dr. Donaldson, thinks, we have a suggestion at least, as to the inervation of the muscles of the larynx. Volition is cast out as a factor. In the first series of experiments *adduction* resulted under all conditions of unconsciousness; in the second series, *abduction* in all conditions of consciousness or deep narcosis. Abduction of the arytenoids was found to depend simply upon the strength (the rate did not change the result) of the stimulus; dilatation of the glottis followed always weak stimulation of the nerve,

He concludes that the functions of the larynx are under the same nerve control as the rest of the organs concerned in inspiration, and under no circumstances are these functions suspended.

The action of the constrictor muscles is second only in importance to that of the dilator muscles, and in view of the results obtained and upon general principles nature would not allow (as held by Dr. Hooper) so important a function to be suspended; and, indeed, even in the deepest narcosis, closure of the glottis followed irritation of the interior of the larynx.

There seems to be a similarity between the nerve fibres of the recurrent and those of the pneumogastric, and Dr. Donaldson is inclined to think the great irritability mentioned above is in the nerve fibres supplying the abductors; the two sets of fibres of the recurrent supply opposite sets of muscles, and may be likened to the two kinds of nerve fibres composing the pneumogastric—the one answering to less, the other to stronger, stimuli.

Again it seems to him that the abductor muscles are the more irritable, and are always ready to perform their part in the human economy; that the adducter muscles, on the other hand, are less irritable, but none the less ready, in consciousness or unconsciousness, to perform their function. It is a physiological fact that impulses from almost every sentient surface, or passing along almost every sensory nerve, may modify the respiratory movements in one direction or the other, the slighter feebler impulses tending to quicken the respiratory discharges; the stronger larger impulses tending to arrest or inhibit the respiratory discharges from the medulla; and the movements of the larynx would be in keeping with that of the rest of the respiratory apparatus.

Finally, the constrictors of the larynx, needing a stronger stimulus to bring them into action, find that stronger stimulus in the numerous reflexes which arise upon the introduction of any foreign body into that organ.

SUICIDE AND ITS STATISTICS.

Dr. G. D'Arcy Adams reviews Morselle's recent work, as published in Numbers IV and V, of the *Giornale de la Reale Societa Italiana d' Igiene*, on the statistical laws of suicide, and summarises his conclusions in a late number of the *London Medical Record*, as follows:

(1) Suicides are becoming more frequent, both in European and American countries, and this is especially the case since 1871.

(2) In Europe the zone of maximum intensity of suicide crosses the continent transversely, it presents two chief foci, round which the majority of cases group themselves. These are Saxony and the Isle of France; their populations, of Germanic race, pure or mixed with Celtic elements, afford the greatest number of suicides.

(3) In all countries most cases occur in the best seasons of the year, in dry and warm weather; fewest cases occur in cold and wet weather. Thus the maximum mean corresponds to June or May, the minimum to December.

(4) As regards the religion of the victims, Protestantism affords the greatest number; then, in decreasing order, Roman Catholicism, Greek or Orthodox Catholicism, Judaism, Mahommatanism, and Fetishism.

(5) Large cities contribute a greater proportion of suicides than smaller towns, and these in their turn more than country districts.

(6) Men are more prone to commit suicide than women, the proportion being four to one.

(7) The frequency of suicide increases regularly with age until old age is reached. Since the beginning of the century suicide in adolescence and childhood has continued to increase in frequency at a constant rate throughout the whole of Europe. In this, as in other things, the female sex is the most precocious.

(8) Matrimony diminishes the inclination to suicide in both sexes; widowhood and divorce lead to an extraordinary increase in the number of cases.

(9) The agricultural and industrial classes show the least inclination to voluntary death; suicide is most frequent in the cultured classes and the liberal professions. In all countries the largest quota of cases is furnished by the military among men, and by domestic servants among women.

(10) Suicide by hanging is preferred by the Teutonic and Slavonic races, and generally prevails in winter and autumn, and in cities; death by drowning, on the other hand, is most frequent in southern countries and in the Latin races, and generally in spring and summer, and in the country. Suicide by hanging and by firearms tends everywhere to increase, so that it may be held as an effect of civilization.

(11) Men in the countries of Northern and Central Europe prefer to kill themselves by hanging; women on the contrary, everywhere prefer drowning. Servants everywhere furnish the greatest number of deaths by poison and soldiers almost invariably choose firearms.

(12) With the development of intelligence and sensibility the more safe, rapid, and painless modes of death are more and more chosen.

THE LAW RELATIVE TO REPORTING CASES OF COMMUNICABLE DISEASES.

Printed circulars get but little attention from those receiving them through the mails. We doubt if due importance was given to the circular recently sent out by Dr. Baker, Secretary of the State Board of Health, relative to reporting cases of communicable diseases. The physician has no choice upon the matter of reporting cases of diseases dangerous to the public health, to the local health officer or to the president or clerk of the local board of health; this act is regulated by the following law:

Section 1735 of Compiled Laws of 1871, being Section 1676 of Howell's Annotated Statutes as amended by Act number 11, Laws of 1883, reads as follows: "Whenever any physician shall know that any person whom he is called to visit, or who is brought to him for examination, is infected with small-pox, cholera, diphtheria, scarlet fever, or any other disease dangerous to the public health, he shall immediately give notice thereof to the health officer, the president, or the clerk of the board of health of the township, city, or village in which the sick person may be; and to the householder, hotel keeper, keeper of a boarding house, or tenant within whose house or rooms the sick person may be. The notice to the officer of the board of health shall state the name of the disease, the name, age, and sex of the person sick, also the name of the physician giving the notice; and shall, by street and number, or otherwise sufficiently designate the house or room in which said sick person may be. And every physician and person acting as a physician, who shall refuse or neglect immediately to give such notice shall forfeit for each such offense a sum not less than fifty nor more than one hundred dollars: *Provided*, That this penalty shall not be enforced against a physician if another physician in attendance has given to the health officer, or other officer hereinbefore mentioned, an immediate notice of said sick person, and the true name of the disease, in accordance with the requirements of this section."

A new section (50) added by Act number 11, Laws of 1883, allows a physician ten cents to be paid by the local board of health for each complete notice made in accordance with this section.

There are many physicians who do not, in whole, or in part, comply with this law. Upon this the circular points the following defects and offers the following suggestions:

Some physicians stop in their compliance with the law after reporting the first case of a number they treat about the same time, and that seem to have a common origin. The law clearly intends that every case of a dangerous communicable disease shall be reported, together with the name, age, and sex of the person sick.

In all cases where practicable, the notice should be given to the health officer, rather than to the president or clerk, because he has important duties to perform under the law.

It will add greatly to our knowledge of these dangerous diseases if physicians will also inform local health officers of the time of death or recovery of each case.

Physicians in attendance upon cases of communicable diseases should not advise the removal of placards from the premises until the health officer is satisfied that the disease is no longer present on the premises, and that disinfection has been thoroughly performed.

This Board regards *typhoid fever* as a communicable disease, and one coming under the section quoted above. Cases of this disease should be reported to the health officer, the same as cases of small-pox, scarlet fever, or diphtheria.

This State Board is now prepared to assist local health officers in preventing and restricting typhoid fever.

INDECENT ASSAULT AND RAPE UPON CHILDREN.

In an article (*Archives of Pediatrics*) in which there were reported twenty-one cases of indecent assault and rape upon children, Dr. Jerome Walker, of Brooklyn, makes some timely comments. He shows, that as physicians are liable to be called upon at any time to decide whether or not young girls have been criminally assaulted, it is a matter of great moment that they should be prepared to decide fairly. An experience of several years as physician to a "Society for the Prevention of Cruelty to Children," has taught him that it is difficult oftentimes to justly weigh the evidence presented, to honestly examine facts, with no undue sympathy for the child or antipathy for her reputed assailant.

Owing to the natural sympathy of both judge and jury for ill-treated children, a prevalent respect for innocence and purity, as well as a current dislike for unnatural crime, a man charged with indecent assault, rape, or an attempt at rape upon a child, though he has good legal talent to defend him, stands a poor chance of acquittal if a reputable doctor swears that the child has been tampered with.

It will not do to give the child the benefit of doubts, for that is injustice to the alleged assailant, who may be a deserving and innocent man. Injustice may mean for him a conviction, that is a sentence to prison for from one to twenty years.

It behooves medical men, therefore, to ponder this side of the case, lest by their carelessly-arrived-at conclusions they wrongfully swear away a fellow-being's liberty, and disgrace and damage both the man and his family. It is not too much to say that such conclusions have been presented in court with the results as above stated.

Before appearing in court, or before a grand jury, "to tell the truth, the whole truth, and nothing but the truth," the doctor should know:

(1) That at the present time, any sexual penetration, however slight, into the genital organs of a female child is legally regarded as sufficient to complete the crime of rape.

(2) That sexual intercourse with a female under the age of ten years, *with or without* her consent, is rape.

(3) That sexual intercourse with a female over the age of ten years is rape, if "through idiocy, imbecility, or any unsoundness of mind, either temporary or permanent," she is incapable of giving consent; if at the time the act is committed, she is unconscious of the nature of the act, and this is known to the defendant; if her resistance is forcibly overcome or is perverted by fear of immediate and great bodily harm, which she has reason to believe will be inflicted upon her; or is prevented by stupor, or by weakness of mind, produced by an intoxicating, narcotic or anæsthetic agent, administered by, or with the privity of the defendant.

(4) That an indecent assault is putting the hands on the privates of a child, or feeling of her legs even. The greatest punishment at present, in this state (New York), for this offense is one year's imprisonment.

The author points out the importance of medical men using when in court, plain and generally-understood language, and of knowing that slight penetration is sufficient entrance to constitute rape, and that laceration of the parts is seldom seen.

To arrive at conclusions intelligenty, one should not only be able to interpret signs aright, but also to sift testimony and fathom motives. The following quiries may assist us:

(1) Is the child's story probable, possible? What motive is there, if any, for falsifying?

(2) What motive, if any, is there for one or both parents, or any relation or friend, abetting the child in her statements?

(3) What was the motive that induced the alleged assailant to attempt connection? Is his story probable?

(4) What physical evidence is there that the child has been injured or penetrated?

(5) Has the injury found, resulted from attempted connection or in some other way? Is the discharge leucorrhœa or gonorrhœa?

At this point it is not out of place to say:

(1) That rude handling of the child's privates, unnecessary exposure, and even broad unguarded questions may induce children to think of prurient subjects, or may excite improper desires.

(2) That careful inspection of the parts and, if necessary, gentle handling should be resorted to before any speculum or other instrument is used, else, in court, injuries alleged to have been found will be ascribed to the doctor's examination.

(3) Examination of both child and alleged assailant—when there is reason to suspect gonorrhœal contamination—should be had as soon as possible after the act for fear that cleansing of the parts will wash away proofs of disaase.

HYDROCHLORATE OF TULIPIFERINE.

Lloyds' *Drugs and Medicines of North America* for June devotes much of its space to the tulip tree (liriodendron tulipifera). From the bark of this tree the Messrs. Lloyd have obtained an alkaloid, which, as advised by Professor Bartholow, they have named *tulipiferine.* From a study of a specimen of the hydrochlorate, Professor Bartholow contributes the following:

General Effects.—In the dose of one-eighth grain it causes paresis, muscular trembling, convulsions of a partly clonic, partly tonic character, heightened cutaneous and ocular reflexes, followed by stupor, increasing paralysis, and finally complete suspension of motility and sensibility. When all the phenomena of life have then apparently ceased, if the chest of the frog is opened, the heart is found to be in slow but rhythmical and sustained action.

In the dose of one-quarter grain administered subcutaneously, the action follows promptly—in twenty minutes—and then the convulsions have a more decidedly tonic character, followed by temporary trembling. The cutaneous reflex is then so much heightened that the faintest impression on the skin is immediately followed by a tonic convulsion, temporary rigidity, and then relaxation succeeds, the limbs remaining extended. After an hour or two the convulsions cease, there is complete muscular relaxation, and the frog seems lifeless; but on opening the chest, the heart is found acting in slow but strong rhythmical contractions, as above stated.

Action on the Peripheral Nerves.—When the sciatic is isolated, it is found that after the action of the medicament begins, the nerve responds to mechanical, chemical and electrical stimuli. As the effect continues and deepens, however, the nerve becomes less and less excitable; but the power of response seems never to be entirely lost. The excitability of the sensory nerves declines *pari passu* with the diminution of the motor, and is at last finally extinguished—for no amount of irritation at last causes any direct or reflex action. Whilst the motorial power is lessening, the muscles continue to respond to the various stimuli to the latest manifestation of any vital action. It follows from these facts that the paralyzing power of tulipiferine is centric chiefly.

As respects the convulsions, these are found to be centric or spinal in origin, also. If a frog be pithed (that is, spinal cord destroyed), no convulsions can be produced by any dose.

Action on the Pneumogastric Nerve and Heart.—After division of the medulla oblongata, the heart is exposed *in situ*, and when the disturbance caused by this procedure has ended, the cardiac pulsations are counted, and the rhythm compared with the metronome beating seconds. As the effect of the medicament deepens after the convulsions have ceased, the pneumogastric becomes less and less excitable on faradic stimulation, until at length no action is had from even a powerful current. The muscular tissue of the heart remains excitable up to its physiological death, for after the final cessation of its movements, it can be excited to contraction by a faradic current, and for a time by merely mechanical stimulation. In these effects of tulipiferine, there is some resemblance to the actions of atropine, but more differences. When the effects of tulipiferine begin, the action of the heart is increased in the number of its pulsations, in correspondence with the decline in the excitability of the vagus, but when the vagus ceases to be excitable, the cardiac pulsations diminish in number, but gain in force, the rhythm being preserved. This apparent paradox seems to be explained by the action of the alkaloid on the accelerator apparatus. A coincident loss of the stimulus derived from the accelerator nerves, and of the inhibitory action of the vagus, is, no doubt, the cause of this apparent anomaly.

Tulipiferine has some action on the cerebrum. In warm-blooded animals, a soporose state, deepening into coma, succeeds to the convulsant action. If a barely lethal quantity is administered to a frog, the animal will lie extended, apparently lifeless for twenty-four hours, and probably longer. If, whilst in this state of muscular relaxation and stupor, an irritant be applied, attempts at motion will be made; but when the irritant is withdrawn, the condition of stupor is resumed. Before death, however, complete sensory paralysis takes place, when no response to irritation is made, and that life still exists can be ascertained only by opening the chest to find the heart in action. The sustained and rhymthical action of the heart is even then manifest; the contractions, although occurring infrequently, are still forcible. It should have been mentioned above that the auricles are the last to suspend action.

This study of tulipiferine serves to explain the former empirical uses of liriodendron. In Rush's time it had reputed virtues as a tonic, as a supporting medicine in fevers, and antiperiodic properties were ascribed to it. The alkaloid will, no doubt, be found useful whenever a tonic to the heart is required. If my conclusions are justified by further studies, and by the observations of others, its applicability to certain phases of cardiac weakness will be peculiarly apt. It is not a powerful alkaloid, and can hardly be dangerous to use, because of the retention by the cardiac muscle of its irritability when a lethal dose has been administered.

CONDENSATIONS.

"The way to sleep," says a scientist, "is to think of nothing." But Dr. Hammond thinks this a mistake and adds, "the way to sleep is to think it is time to get up."

Sanitary Convention.—Arrangements have been made by a local committee of citizens of Big Rapids, acting with a committee of the State Board of Health, to hold a sanitary convention in that place on Thursday and Friday, November 18 and 19, 1886.

A Simple Test for Sugar.—The simplest test for diabetic urine (*American Medical Digest*) is to place a little on a piece of bright tin, which is held over a spirit lamp until the urine is evaporated. If sugar is present, the last portion of the urine will give the characteristic appearance and odor of burnt molasses.

The Pacific Record of Medicine and Pharmacy, a monthly résumé of medical and pharmaceutical progress, is the name and function of a new journal, printed in both Spanish and English. This hybrid had its birth in San Francisco, August 15, 1886, and will have a monthly delivery under the editorial management of Chas. W. Moore, M. D.

A MAN WITH A FEMALE COMPLAINT.—A young man entered the Dispensary of the Chicago Polyclinic recently, and going up to the clerk held out one of the Dispensary circulars with the question: "Say! isn't this the hour for diseases of women?" The clerk answered in the affirmative, when the young man said: "Well! I've got a disease of a woman and want to be treated."

TWO NEW BURSÆ AT THE KNEE-JOINT.—At a recent session of the Paris Anatomical Society, M. Porier demonstrated the existence of two new serous bursæ at the knee. They are situated, the one between the internal lateral ligament and the femur, the other between the same ligament and the tibia, and are separated from each other by the insertion of the internal ligament into the inter-articular cartilage.

TYING THE UMBILICAL CORD.—Late tying of the umbilical cord is recommended by Engel, for when this practice is followed the new-born child receives as much as a quarter or even a third more blood than its body would otherwise contain. Moreover, it is quieter, does not begin to drink so soon, and is more sleepy. He also finds that the plan of ligaturing late greatly improves the prospects of life of the new-born child.

THE TEMPERATURE OF THE MAMMARY GLAND DURING THE PUERPERUM.—Negri found when a surface thermometer was laid on one breast at the same time that an ordinary maximum thermometer was lying in the corresponding axilla, that the temperature of the mammary gland was higher post-partum than in pregnancy or the non-gravid state, though never higher than that of the axilla, and only in exceptional cases as high. The more abundant the lacteal secretion, the higher the temperature, a persistently high temperature indicating a copious milk supply.

NEW DRESSING FOR BURNS.—An application which is claimed to be a perfect dressing and to fulfill every indication, consists of tannin, dissolved in sulphuric ether in such proportions as to give it a syrup-like consistence. This was applied directly to the burned parts of a patient who seemed to be bordering on convulsions, from sheer pain. Instant relief followed the application, which dried rapidly and formed a flexible, non-elastic coating, and excluded the air as effectually as collodion.

PENDULOUS ABDOMEN IN WOMEN.—In comparing the pendulous abdomen of German multiparæ with the tense and firm condition of the abdominal walls of the English, Czerny ascribes it to the fact that in England it is the custom for the accoucheur immediately after the completion of labor to apply a broad binder firmly to the abdomen of the parturient women. There is reason for supposing that it was formerly the custom in Germany to apply such a binder, but now it has fallen almost entirely into disuse. Czerny recommends that accoucheurs and midwives be taught to apply immediately on the conclusion of labor a broad binder round the lower abdomen, as a prophylatic measure against pendulous abdomen.

Treatment of Acne.—Dr. Hutchinson claims that ninety per cent. of all forms of acne are due to some hyperæmic condition of the sexual apparatus, and his main reason for this belief consists in the fact that it almost invariably makes its appearance at puberty. A fair experience seems to prove him right. He treated his patient so affected with local applications and internal medication, as is customary. Very little or no relief resulting at the end of three weeks, he began the use of the cold urethral sound in the male and the hot vaginal douche in the female. This was conjoined with a placebo Benefit was derived in one or two weeks, and a cure in a month.

The Curette in Puerperal Sepis.—A mode of treatment in cases of puerperal sepsis has recently been adopted by Professor Carl Braun, which has generally proved most efficient As soon as a marked rise in temperature occurs the interior of the uterus is thoroughly curetted and disinfected by an antiseptic fluid, usually thymol. The curette removes masses of decidua, blood clots, and often pieces of membrane, the presence of which would not be suspected, as the labor may have been normal. To be efficient the operation must be done thoroughly yet gently. An iodoform pencil or uterine suppository is often placed in the cervix after the operation, and antiseptic gauze in the vagina to absorb discharges.

Examination of the Sigmoid Flexure with an Electric Lamp.—In a paper read before the Kentucky State Medical Society (*American Practitioner and News*), Dr. Carpenter reports a case of ulceration of the sigmoid flexure. The lower bowel was cleansed with a large injection of hot water and salt. Sims' speculum was inserted into the anus which had been dilated, and the patient directed to make prolonged expirations. The rectum became distended with air, when an electric lamp was introduced and an ulcer one inch by two was seen in the sigmoid flexure, ten inches from the anus. Subsequent ocular examinations were made with reflected light from the head mirror of a laryngoscope by which the ulcerated surface and lining of the sigmoid flexure and rectum was sufficiently illuminated to make local applications to the diseased portion.

TREATMENT OF CATARRHAL JAUNDICE.—Longuet in *Union Medicale* gives an account of Krull's method of treatment and of Lowenthal's recent confirmation of its efficiency. It seems that Krull published an account of his method in 1877, but that it excited little attention until Lowenthal took it up. The first injection, of one or two quarts, at a temperature of 59° Fahrenheit, is thrown in gently, and retained as long as possible. On the succeeding days an enema is given every morning, the temperature being gradually increased to 71.6° Fahrenheit, which is not exceeded. The cure is generally accomplished by the fourth day, and in no instance have more than seven injections been found necessary. No failures are mentioned, although several of the cases were of long standing, and had resisted the most varied treatment, including the use of that *ultima ratio* of the Germans, Carlsbad water. No medicine is allowed to be taken, and the diet is restricted to vegetables. Lowenthal, who used injections somewhat colder than those mentioned, tried the method in forty-one cases, and he absolutely confirms Krull's report of its efficiency.

PRURIGO.—An interesting account of a very typical case of this rare disease is reported by Dr. Myrtle in the *Lancet*. The patient was a woman aged thirty-four, who had always perfect health until she felt an itching on the inner surface of her anus and thighs, and detected hard little lumps in the skin. She became rapidly worse, and after trying many remedies went to the hospital. Even with powerful hypnotics, she could get no sleep, and her nervous system was perfectly broken down. The skin of the affected parts was darker than natural, and thickened so much that it could not be picked up between the finger and thumb. The legs were not as severely affected as the anus when the sign which Hebra gives as a certain diagnostic, was obtained. On passing the hand over the skin, it produced a sound like a short-haired brush or packing paper, caused a prickling sensation to the fingers, and felt like a nutmeg grater. Sulphur water was ordered, before breakfast, in purgative doses, and the magnesia water at noon, as a diuretic, with a strong sulphur bath every second day. Magnesia water was to be used as a lotion as often as the patient wished. The results of this treatment were highly satisfactory. It proved the great value of sulphur water, and the powerful absorbent and softening influence it has over the worst forms of chronic indurated skin-disease.

ELIGIBLE PREPARATIONS OF DRUGS COMMONLY USED.—In nothing is the skill of the physician better displayed in practice than in the nice adaptation of the means to the end—the election of those remedial agents which produce most surely and speedily the desired therapeutic effect with a minimum disturbance of general function. Thus if it be required to give quinine, there is no longer an excuse for exhibiting it in powder, unprotected, or in the equally disagreeable tincture of cinchona, since the physician has at his disposal not only the pills, but the equally eligible and perhaps more soluble elastic capsules of quinine, or if the powder be preferred its bitterness can be completely masked by some agreeable vehicle like cascara cordial, or fluid extract licorice, prepared for quinine mixtures. If the physician is disappointed and annoyed at the various effects produced by equal doses of fluid extracts of the same drug, pharmacy offers him in normal liquids a class of fluid extracts of uniform strength which can be relied upon to contain a specific quantity of the active principle. If he has been obliged to discontinue the administration of salicylic acid just when it seems most indicated, on account of the toxic symptoms developed, his pharmacist can explain that a preparation of salicylic acid made from the oil of wintergreen and absolutely free from impurities, and, therefore, less liable to develop toxic symptoms, is now at his disposal. In catarrhal affections, especially of the genito-urinary tract, golden seal has been shown to act almost as a specific, but owing to the disagreeable staining of the linen, incident to the use of the fluid extract of golden seal, it fell into disfavor. It will, therefore, interest physicians to know that a preparation of golden seal can now be had known as fluid golden seal colorless, which does not stain and which is also adapted for internal administration, since it is free from the bitterness so characteristic of the fluid extract. Messrs. Parke, Davis & Company have been identified with many of the recent additions and improvements in the manufacture of medicinal preparations, and among them those alluded to above, and our readers will always find requests for information regarding any of the products of this well known house, will receive their instant and courteous attention.

NEW PUBLICATIONS.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by William Pepper, M. D., LL. D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. Assisted by Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume IV: Diseases of the Genito-Urinary and Cutaneous Systems, Medical Opththalmology, and Otology. Philadelphia: Lea Brothers & Company, 1886.

Contents of Volume IV: *Diseases of the Genito-Urinary System*:—Diseases of the Kidneys, including the Pelvis of the Kidneys, by Robert T. Edes, M. D.; Diseases of the Parenchyma of the Kidneys, and Perinephritis, by Francis Dalafield, M. D.; Hæmaturia and Hæmoglobinuria or Hæmatinuria, by James

Tyson, A. M., M. D.; Chyluria, by James Tyson, A. M., M. D.; Diseases of the Male Bladder, by Edward L. Keyes, A. M., M. D.; Seminal Incontinence, by Samuel W. Gross, A. M., M. D.; Displacements of the Uterus, by Edward C. Dudley, A. B., M. D.; Disorders of the Uterine Functions, Including Amenorrhœa, Dysmenorrhœa and Menorrhagia, by J. C. Reeve, M. D.; Inflammation of the Pelvic Cellular Tissue and Pelvic Peritoneum, by B. F. Baer, M. D.; Pelvic Hæmatocele, by T. Gaillard Thomas, M. D.; Fibrous Tumors of the Uterus, by William H. Byford, M. D.; Sarcoma of the Uterus, by William H. Byford, M. D.; Carcinoma or Cancer of the Uterus, by William H. Byford, M. D.; Diseases of the Ovaries and Oviducts, by William Goodell, M. D.; Diseases of the Urinary Organs in Women, by Alexander J. C. Skene, M. D.; Diseases of the Vagina and Vulva, by Edward W. Jenks, M. D., LL. D.; Diseases of Pregnancy, by W. W. Jaggard, A. M., M. D.; Functional Disorders in Connection with the Menopause, by W. W. Jaggard, A. M., M. D.; Diseases of the Parenchyma of the Uterus; Metritis and Endometritis, Including Leucorrhœa, by W. W. Jaggard, A. M., M. D.; Abortion, by George J. Englemann, M. D., (Berlin). *Diseases of the Muscular System:*—Myalgia, by James C. Wilson, A. M., M. D.; Progressive Muscular Atrophy, by James Tyson, A. M., M. D.; Pseudo-Hypertrophic Paralysis, by Mary Putnam Jacobi, M. D. *Diseases of the Skin:*—Diseases of the Skin, by Louis A. Duhring, M. D., and Henry W. Stetnagon, M. D. *Medical Ophthalmology:*—Medical Ophthalmology, by William F. Morris, A. M., M. D. *Medical Otology:*—Medical Otology, by George Strawbridge, M. D.

In reviewing these volumes, to make commentation upon each article is out of consideration; and when so many individuals contribute, each with a style characteristically his own, the works and articles have but a single common feature; they are American. The contents tells what subjects are considered in Volume IV. The contributors are not strangers. They are distinguished practitioners and specialists, and eminent authors. Their standard works are found upon every physician's shelves, and their articles are continuously seen in medical journals. There is, however, a great difference between a book and an article: the one should be valuable for its fullness and completeness, the other for its conciseness and newness. The monographs which compose these grand constellations of medical subjects are *eclectic* when considered from the stand-point of book and article. They have the principle features of both modified and harmonized.

Doing this volume in such a general way, however, would be an injustice to the reader as well as to Dr. Morris, if some special notice was not made of his article on Medical Ophthalmology. The field covered in this paper cannot be more explicitedly marked, than that out-lined by the author in his introduction. "The object of the following essay," says Dr. Morris, "is to give as far as practicable in the limits of an encyclopædic article, an account of the eye symptoms, which may be seen in the course of diseases of the general system and connection with the pathological conditions of the various organs of the body. The eye has always been looked on as a valuable indicator of general systemic disturbance. . . . In order to judge the state of the circulation the physician habitually looks at the lips, the tongue, and the nails, where the capillaries are covered by transluent material, to appreciate the state of the circulation. How much better are we enabled to do this when by the use of the ophthalmoscope, we look at the interior of the eye and see the blood-columns in the veins and arteries of the head of the optic nerve and the retina laid bare to our view without any opaque covering whatever? Such an examination, besides showing the state of the circulation, will frequently reveal a neuritis which may be due to some intra-cranial disease, or show a degeneration of the optic nerve which may point to impaired power and tissue-change in the spinal cord or the brain; or there may be characteristic retinal changes associated, as, for instance, with disease of the kidneys, or extravasation of blood which may be dependent on general or local causes; these often serving as important indices of the state of the nerves and vascular tissues in other organs of the body."

Upon this line of thought Dr. Morris gives the "changes in the eye-ground and its appendages due to diseases of the circulatory apparatus—heart, blood-vessels, and blood; changes affected by diseases of the organ of respiration; affections of the eye caused by diseases of the digestive organs; by diseases of the kidneys and skin; the disturbances of vision caused by disease of the sexual organs; febrile and post-febrile ophthalmitis; changes produced by diseases of the nervous system."

The importance of such information cannot be over-estimated. By this grouping of eye-symptoms the practitioner is enabled to more readily and acurately diagnose various pathological conditions of remote organs.

The article on Medical Otology, includes those diseases of the ear that are frequently seen by the general practitioner and specially those that exist as sequalæ to some general disease, and where the ear complication would be treated in connection with the general disorder.

ACNE: Its Etiology, Pathology, and Treatment. A Practical Treatise based on the Study of One Thousand Five Hundred Cases of Sebaceous Disease. By L. Duncan Buckley, A. M., M. D. Cloth. Illustrated. 8mo: two hundred pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1885.

Acne is a disease, common, easily diagnosed, and yet, from its obstinacy and its resulting disfiguration, is an affection that was worthy of greater attention than that which had, until lately, been given it. Patients do not die from it, and yet from the constant annoyance and mortification which it occasions, acne should be as well studied by the physician who is daily called upon to prescribe for it, as diseases that result in disolution.

Dr. Bulkley has had an opportunity, in the New York Skin and Cancer Hospital, to study this disease in all its conditions, and from his observations, drawn from fifteen hundred cases, he has been able to collect data that is of great practical value in the cure of this unpleasant affection. His studies extend over all the subjects pertaining to acne. Full consideration is given to the anatomy and physiology of the sebaceous glands, and the pathological anatomy of the various affections of these glands is extensively dwelt upon and freely illustrated by original drawings. A number of clinical histories, illustrating the features of the disease, are introduced through the text, rendering the subject clear and forcible.

In the chapter on therapeutics we feel that too much space is given to special formulæ. The habit of using set prescriptions is too easily acquired to be encouraged. In the treatment attention is called to the great importance of closely carrying out the details. The chapter on diet and hygiene of acne contains many broad principles and a corresponding number of closely drawn and finely delineated facts and truths.

The information contained in the work is of the character that should insure a volume finding its way into the library of every physician who desires to do the best he can for his acne patients.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Fractures, Dislocations, Ligature of Arteries, Amputations, and Excisions of Bones and Joints. By J. Ewing Mears, M. D., Lecturer on Practical Surgery and Demonstrator of Surgery in Jefferson Medical College; Professor of Anatomy and Clinical Surgery in the Pennsylvania College of Dental Surgery; Surgeon to Saint Mary's Hospital; Gynæcologist to Jefferson Medical College Hospital; Fellow to the American Surgical Society, etc. With four hundred and ninety illustrations. 12mo: seven hundred and ninety pages. Cloth, $3.75; sheep, $4.75. Philadelphia: P. Blakiston, Son & Company, 1886.

In preparing the second edition of this work, the author has complied with the desires of many who have become familiar with the excellence of the former edition. Coming from the pen of an eminent and experienced teacher the student portion of the profession is given a work for which they can have every reason to feel thankful. It was written for his aid and instruction. The subjects are treated in a practical, concise, and condensed form, but nothing has been omitted that is necessary to make the instruction clear and complete.

The text is profusely illustrated; a full index is appended; and the publishers, mindful of the student's comfort, have printed it in a convenient form. As a teacher we appreciate its merits, and most earnestly commend the work to all.

BOOKS AND PAMPHLETS RECEIVED.

NOTE ON CHOLESCYSTOTOMY. Reply to Mr. Lawson Tait, F. R. C. S. By Mr. Augustus C. Bernays. Saint Louis, Missouri: Reprinted from the *Weekly Medical Review*, August 4, 1886.

REPORT OF THE QUARANTINE SYSTEM OF THE SAINT LAWRENCE. Approved and adopted by the Provincial Board of Health, Ontario, 1886. Toronto: Printed by Warwick & Sons, 1886.

ILLUSTRATED CATALOGUE AND PRICE LIST OF SURGICAL INSTRUMENTS, ORTHOPÆDICAL APPLIANCES, ETC., for sale by A. Kuhlman, Manufacturer, Importer, Wholesale and Retail Dealer in Surgical Instruments. Detroit: Raynor & Taylor, 1886.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY. Twenty-First Annual Meeting. Held at Jackson, June 9 and 10, 1886. Committee on Publication: Drs. George Duffield, W. P. Manton, C. B. Burr, C. G. Jennings, F. W. Brown. Detroit: John Eby & Company, 1886.

THE RELATION OF THE STATE AND THE MEDICAL PROFESSION: An Address delivered June 30, 1886, before the Alumni Association of the Department of Medicine and Surgery of the University of Michigan. By Charles J. Lundy, A. M., M. D., President of the Medical Alumni Association, University of Michigan; President of the Detroit Medical and Library Association; Professor of Diseases of the Eye, Ear and Throat in the Detroit College of Medicine, etc. Ann Arbor: Frank E. Beeman, 1886.

ELECTROLYSIS: Its Theoretical Consideration and Its Therapeutical and Surgical Applications. By Robert Amory, A. M., M. D., Member of the Massachusetts Medical Society; Fellow of the American Academy of Arts and Sciences; Fellow of the American Academy of Medicine, etc., etc. Octavo: three hundred and fourteen pages. Illustrated by nearly one hundred fine wood engravings. Supplied only to subscribers for "Wood's Library of Standard Medical Authors," for 1886 (twelve volumes, price, $15.00), of which this is Volume VIII. New York: William Wood & Company.

ELECTROLYSIS IN GYNÆCOLOGY: With a Report of Three Cases of Fibroid Tumor Successfully Treated by the Method. By Franklin H. Martin, M. D., Professor of Gynæcology in Chicago Policlinic; Fellow of Chicago Gynæcological Society; Clinical Lecturer in Gynæcological Department of South Side Dispensary; Member of Chicago Medical Society, etc. Read in the Section of Obstetrics and Diseases of Women at the Thirty-Seventh Annual Meeting of the American Medical Association, May 5, 1886. With Discussion by Ely Van de Warker, of Syracuse, New York; Robert Newman, of New York City; Geo. E. Hulbert and Geo. J. Engelmann, of Saint Louis, Missouri. Also Supplementary Paper citing Two Cases of Fibroid Tumor Treated by Electrolysis. By J. N. Freeman, M. D., of Brooklyn, New York. Reprinted from the *Journal of the American Medical Association*, July 17 and 24, 1836. Chicago: Printed at the Office of the American Medical Association, 1886.

MEDICAL DIGEST.

MECONEUROPATHIA.

Under the above title the following paper was announced to be read before the Section on Medicine, American Medical Asssociation, by Dr. C. H. Hughes, M. D., of Saint Louis:

The long continued use of opium or its salts (in any considerable quantity), engenders a disorder of the nervous system which is entitled to distinctive recognition. Its sequence is as much a pathological entity as alcoholism, saturnism, hysteria or chorea.

Meconeuropathia is as much entitled to recognition as that well known disease, epilepsia, whose clinical features medical science has so much better portrayed than its distinctive pathology.

The reputed pathology of disease is subject to change, dependent upon the modification and improvement in method of study, and the manner in which, from time to time, the profession views the revelations of science as to morbid products and necroscopic appearances and their relation to the pathological processes which may have preceded or followed them. Witness, in illustration, the changing and changed views of the pathology of phthisis and cholera, which just now are generally supposed to have but little to do with the nervous system, though the state of the nervous system has, in my opinion, very much to do with them, notwithstanding their bacillian relations, which, though generally recognized, are yet not definitely settled.

Whether bacilli make these diseases or these diseases furnish the congenial soil for the bacilli, is sufficiently contested, in certain quarters, to warrant the assertion, whatever may be our individual opinion, that the final pathological relations of bacilli to phthisis and cholera, are not incontestably determined and universally settled in the professional mind. Yet we accept phthisis pulmonalis and cholera Asiatica as facts, notwithstanding we may still discuss their respective pathology.

The writer has long been familiar with the distinctive symptomatological sequences of chronic opium poisoning of the nerve centres, having had abundant opportunity to see the neuro-psychic phase of the malady during his connection with the asylum for the insane, at Fulton, Missouri, as superintendent and physician, from 1866 to 1872, and of observing them since the latter date in a practice which has grown sufficiently neurological to occupy the writer's whole time to the exclusion of other diseases. He has deferred the present communication in the hope that he might reach a more satisfactory conclusion than that which he now holds, respecting a definite pathology for meconeuropathia. Under the title of chronic meconism he has discussed this disease heretofore in its symptomatological grouping, in considering its treatment, but has never emphasized, as he does now, in this communication, nor has anyone else so emphasized the fact, that the long continued and uninterrupted impressions of opium upon the cerebro-spinal and allied ganglionic system engenders a state of undoubted neurotrophic and combined specific poison-impairment, which persists a long time after the abstraction of the drug, and which is immediately apparent in its intensest form upon its abrupt withdrawal.

This condition and its symptoms are to be differentiated from the symptomatology of the direct and daily renewed opium stimulation, which marks the graver condition and its symptoms, while the patient's blood holds the abnormal excitant in solution in the circulation.

The opium habituate maintains a semi-physiological condition while under opium influence. It is only when it is taken away from him that the true and pathological condition of his psychical sensory and ganglionic nervous systems, especially, become apparent. Remotely, it is the poison that has made the trouble. Immediately, it is the repetition of it in quantities and at intervals to which the abnormal nerve centers have become accustomed, that masks the real malady and gives the patients relief.

It is of the utmost importance, in practice, that we should recognize the undoubted fact that opium habitually taken into the system engenders a neurosis, a psycho-neurosis, at the same time that its administration palliates and subdues this psychoneurosis for a very long time, if given in gradually augmented doses.

It is not to recent poisoning that the opium neurosis is due, but to a slowly brought about change, which persists long after the opium is withdrawn, if the patient does not perish from too sudden abstraction of the drug, and blind and unwarranted reliance in a *vis medicatrix naturæ* (which is not present in these cases) for self-rectification, as I have known to occur in some cases, and as I believe occurs in many more cases than are recorded, the death of the patient being attributed to causes which are supposed to be disconnected from the meconophagism, but which are really the result of it, such as cardiac paralysis, neuralgia of the heart, and angina pectoris, so-called. Obersteiner, a German physician, advocates abrupt withdrawal, a practice, which, from extensive observation of attempts made by other physicians with cases, which have come into my hands, and from desperate self-attempts to quit the habit by suddenly giving up the use of opium, and from a knowledge of fatal results from this practice, I most unqualifiedly and emphatically condemn as unscientific and cruel, in view of the persisting morbid sequelæ of opium addiction. It is an inhuman and barbarous práctice. When the habit is of recent standing, the quantity taken is small and the consequent central nerve impairment so slight as to leave the nervous system in a state of almost physiological recuperability, of course the abrupt weaning process may be considered, and if the results of a greatly shattered nervous system do not appear within thirty-six or forty-eight hours (for some patients take but one large dose of ten or twenty grains of morphine a day whose impression lasts for twenty-four hours), it may be tried.

The opium neurosis we are considering is not an intoxication from the drug, but a central neurotic change, brought about by the long persisting perversion of function and impairment of central nervous nutrition, from its persisting presence in the nutrient pabulum of the circulation.

The psychosis of opium is a blended intoxication and chronic poisoning of the psychical centers of the brain, and other symptoms of acute opium poisoning are essentially different, being mainly a profound paralysis of sensation and of the centers of involuntary motion especially having their origin in the medulla and upper part of the spinal cord—profound narcosis, lowered respiratory movements, etc., while chronic opium poisoning, or meconeuropathia, is characterized by repeated nerve excitations, in which the nerve centers, not being completely overcome, a kind of tolerance is established, with progressing developing abnormal molecular neural changes, which are as repeatedly covered up and marked by the renewed doses, till some sudden deprivation of the drug or failure to appropriate it, reveals, in full force, the neural mischief which has been gradually done. Opium, like a bank defaulter, both makes and masks the mischief done, which is kept concealed so long as he stays in the institution.

In former communications the writer has discussed the effects of opium as a toxic psychosis (*vide Alienist and Neurologist*, and paper before the Saint Louis Medical Society).

The purpose of this paper is to give emphasis to those neuropathic features which entitle it to distinctive prominence in the nomenclature of disease.

Within a period of from ten to twenty-four hours, in rare cases, after twenty-four or thirty-six hours, after the last dose of the accustomed stimulus has been taken, a singular psychical and physical restlessness becomes manifest. The patient becomes ill at ease, cannot sit or stand or lie still, moves or tosses about, and his or her attention cannot be steadily engaged by ordinary conversation. Later the restlessness intensifies. At this stage the patient will evade you, or seek some excuse to get where the missing morphine or opium prop can be found. He or she will, at this juncture, go clandestinely to the place where the vial, or powder or pill or deadly hypodermic syringe, is secreted, or make a pretext for visiting the nearest drugstore or doctor. If to the latter, the victim has a ready-made story of a painful fictitious malady for which opium or some of its preparations are prescribed. A convenient diarrhœa, a sudden painful cough, a toothache or neuralgia attacks him. When the opium is out of him, he suffers real pain, but it is only meconalgia—the pain of opium withdrawn—the pangs which follow in the trail, and not from the pangs of the opium serpent.

If the patient is not suspected and under restraint, a ruse of this kind is successful, and the further progress of the symptoms is arrested.

But if the symptoms are not thus subdued, the mental restlessness passes in furtive glances of transient morbid suspicion, which soon pass into spectral illusions, hallucinations and delusions, and later into delirium with marked agitation and sometimes slight tremors. The agitation and fright are not extreme like those of alcoholic delirium, and the delirium is less broken. The character of the transitory insanity following sudden opium withdrawal will be modified like insanity in general by the constitutional susceptibility and tendencies to insanity in the person. The hysterical diathesis will be unmarked in some cases, conditions bordering on true mania and despairing melancholia and suicidal tendencies will appear in others, while in others only wretchedness, mental confusion and fleeting illusions will appear, but in all there is head disturbance approximating delirium and threatening insanity. This is the psychical picture which morbid nature deranged by chronic opium poisoning of the brain, has always painted for me in a not very limited experience.

The lower neuropathic features are the following with but little variation in all the cases which have come under my observation.

The general nervous agitation increases as the patient gets further away from the last remnant of narcotic support, when the opium has passed out of the system and finished its morbid mission within it. The limbs, especially the forearms, ache and pain somewhat as if the patient were attacked all over with a severe muscular and arthritic rheumatism combined, and darting lightning-like pains, traverse the peripheral sensory nerves. This is only an approximative description of the pains, for the pains of the opium neurosis are peculiar as those of locomotor ataxia, and preferably occupy the upper extremities, as those of posterior spinal sclerosis, are found chiefly in the lower limb. Cold sweat and profuse, appears over the body, the enteric vaso-motor system seems paralyzed, and an exhausting diarrhœa, at first loose and fecal, and finally watery, sets in. The patient feels as if dissolution were imminent. His tongue is furred and mouth clammy, the preternatural brilliancy which the eyes may but the day before have shown, is changed into a muddy, leaden appearance, with a look in them of hopeless despair.

The heart beats fast and feeble, but the temperature frequently falls a degree or two below normal, but I have never seen it mount rapidly above 98.50°.

The respiration falls in frequency and becomes gaping, but it rarely becomes extremely slow and deliberate as in acute opium poisoning. The sclerotics in most cases, when the opium habit has not extended over many years, have a fairly liquid transparent look. The reflexes are exaggerated, and the patient has insomnia, or if there is drowsiness, it is an abnormal sort of somnolency of a delirious character, from which the patient starts at the slighest touch or without any excitation in a fright.

Nausea and vomiting set in simultaneously with the diarrhœa; the bladder empties itself often; and every function under the control of the solar plexus seems to have lost its normal restraining influence.

The neural phenomena of the meconic neurosis below the head, in its crisis stage, resemble those of cholera nostras, excepting the pains in lieu of cramps being more diffused or confined more especially to the arms, while those of cholera are more frequent in the lower limbs, and I have no doubt that the cause of the symptom is in the exhaustion of Auerbach's and Meissner's plexus, especially in both diseases and in the semilunar ganglion of the sympathetic. The thoracic ganglia do not escape in either disease.

The head symptoms of the opium neurosis are essentially different from those of cholera morbus, and the enteric attack in the latter disease is far more violent and acutely destructive than in the former. The diarrhœa and vomiting of the opium neurosis are more deliberate in character and are tolerated for several days, if unaverted by judicious medication, without fatal results, and are more promptly averted by opium given internally than cholera morbus, though it is surprising how effectually we may control cholera morbus by hypodermic morphia, though not so speedily as the diarrhœa and vomiting of the opium neurosis. Opium is a congenial drug in the diarrhœa and vomiting following its withdrawal, and the certainty and promptitude with which it arrests the most alarming symptoms, even when given into a stomach that rejects everything else, is a diagnostic sign of the opium neurosis.

In the neurosis the nose does not become speedily pinched in appearance or the features so death-like and pale as they appear after a few hours of cholera morbus, and the voice does not get so husky or feeble.

I have seen a patient die of abdominal and cardiac dropsy following repeated self-attempts always abandoned, to give up ten grains hypodermically a day; and I have known patients to die of heart paralysis after sudden deprivation. I have never allowed these alarming symptoms to go on, in my own cases, but have begun at once to restore the opium to the normal quantity, habitually used till all symptoms of nerve failure have subsided, and then begun a rational system of gradual reduction, therapeutic substitution and reconstruction of the patient. The opium neurosis is not cured, even when the patient has been weaned from his accustomed drug, but he is often subject to neuropathical symptoms, and a proper subject for continued neurological treatment, requiring treatment for many months after cessation, to prevent a return to the use of the drug that damaged and enslaved. The patient is not safe from neural damage, even though he may never return to the drug, until he fattens some, feeds well habitually, and sleeps much, and can resume his ordinary occupation without nervous fatigue and an inclination to take to opium or other form of stimulation. With this view of this disease it would be fitting here to protest against the substitution of some other form of stimulation for opium, abandoned or withdrawn, and when the disease-weakened nervous system has been enslaved by another stimulant narcotic, call that a cure.

There is a periodic form of morphia-craving, so much like periodical dipsomania as to entitle it to the term opiomania, which develops in patients of neurotic temperament who have been given morphia or opium to any considerable extent. This shows itself sometimes in persons who have been broken of the opium habit, and these are the most hopeless cases to treat.

This periodic opiomania is characterized by an overwhelming morbid craving for the drug which comes on like the craving for drink to the periodic drinker, without warning except a morbid restlessness and sometimes an irritable stomach, which a full dose of morphine—a third to half a grain—will appease, and if followed by a night of sleep the craving will be allayed sometimes for a week, sometimes for a month. These cases should be studied more than they are in the light of what we know of the periodic drink craving. They are easily developed by the administration of morphine or opium to neuropaths, in whose ancestry insanity and allied nervous diseases are numerous.

But this is not the acute neurosis *sui generis* developed by repeated excesses in opium taking, in the non-hereditarily neuropathic, but rather a less painful and less violent and more chronic and enduring form. From three to six weeks of abstinence, or abstinence and substitution combined, ordinarily suffices to cure the acute opium neurosis. The chronic form of the trouble is much more persistent, persisting often-times for a life-time, because a dormant morbid heredity has been awakened into active life not to slumber again till the last sleep of life overtakes the unfortunate sufferer. The true opium neurosis sustains about the same relation to the chronic periodic form of opium neuropathy that alcoholism sustains to dipsomania.

Alcoholism is a morbid condition of the nervous system, developed by repeated alcoholic libations, dipsomania, a latent neuropathic condition, readily excited into activity by the poison. And the poison often develops this disease with surprising rapidity. These are the persons to whom a single drink is often dangerous, and astonishes us with its consequences, because they are so extraordinarily disproportionate to the time the victim has been given to drink. Such persons become drunkards in a day, as it were, and persons like them become opiomaniacs or periodic opium takers, or have insatiable desire after a few doses of morphia or opium.

The opium maniac, like the dipsomaniac, is prepared by inherent organic instability to be made so, after one or a limited number of toxic impressions. In some instances he is as susceptible, by hereditary instability of psychical nerve elements, as powder or dynamite are to explode, needing only the exciting spark or concussion of a marked opium impression. But true meconopathia or the consequences of prolonged and continuous meconism in non-narcotic doses, so gradually induced that a kind of tolerance to the graver direct toxic effects is established, and the ordinary prompt narcotic effects are resisted by the organism, is, like chronic alcoholism, as contradistinguished from dipsomania, more gradually effected and developed by changes induced in the cerebro-spinal centers, through slow poisoning and nutritional perversion of neural tissue.

An acute psychosis resulting from opium in the blood in moderate quantities is, I am convinced from long observation and diligent inquiry, associated with inherent central nerve instability, often and most usually associated with the insane temperament, already actively displayed in some member of the family, and only dormant in the individual till aroused by the disturbing influence of the drug, and, like acute insanity, developed by alcoholic intoxication. Here both opium and alcohol become valuable diagnostic signs in our search for a dormant hereditary psychopathic tendency.

The sum of this subject, as thus only preliminarily and too cursorily presented, is this:

(1) Large doses of opium cause an acute narcosis and well-known forms of physiological depression, which we are not here considering.

(2) Under gradual habituation to increasing doses, acute, narcotic, ordinary, toxic effects are, in great measure resisted by the organism, and sensory analgesia, and psychical exaltation followed by brain weariness, somnolentia and sleep after each

repetition of the dose are the chief ordinary manifestations, with a final more or less impaired function of bowel, liver, skin, with certain psychical features.

This is not the subject now claiming our attention. This true chronic meconism or papaverism and its characteristic symptomatology is due to the combined influence of a damaged and a poisoned nervous system.

(3) A true acute psychosis is developed in the neuropathically inclined, as insanity is developed by a large drink or two of some strong alcoholic beverage. This is the acute insanity of opium requiring two factors, hereditary predisposition and a central toxic influence to induce. This we are not considering now.

(4) A hereditary instability of nerve elements lead some organisms to irresistibly crave stimulants at certain times, generally after ordinary nervous and physical exhaustion, and these are satisfied with alcohol or opium. If they happen to find solace in opium readily, they become meconophagists, or if alcohol first falls in their way and the insatiate longings of their unstable nervous organisms find in some beverage containing it the agreeable and temporarily satisfying impression their neuropathic organisms crave, their will, mastered by the lower dominant organic feeling, becomes a slave to the tyranny of a bad organism regardless of consequences, and they enter like the luckless DeQuaincy, into an Iliad of woes.

But it is not this feature of the opium habit we are now considering, but rather the mark and impress it makes upon the central neural mechanism after the poison is no longer present in the blood, to mark or modify the symptomatic expression of the organism.

This is the true meconopathia or morbid condition engendered by the repeated and long continued assaults of the toxic enemy on the cerebro-spinal and ganglionic centers, and which comes on shortly after the withdrawal of the drug, and abides with the system long after the drug is taken away, especially in permanent psychical aberration and final dementia.

If we contrast the prominent symptoms of opium present and opium absent in meconophagism and meconopathia, we find in all cases, in the former, constipation, psychical satisfaction or exaltation, followed by drowsiness and sleep, analgesia, fair tonicity of stomach and skin. In the latter, we find always very loose bowels, requiring medical restraint after the first day. Relaxed and perspiring skin, nausea and vomiting, sensory hyperæsthesia of special senses, hyperalgesia, especially about flexor regions of forearm and about joints of lower extremities (true meconalgias) psychical depression and insomnia, psychical delusions of dread and of approaching calamities.

These symptoms may be modified by treatment so as to end in convalescence in the course of six weeks, and to disappear entirely in the course of eight to ten, according to the degree of damage done, or, if ignored, they may end in irreparable mental alienation or death.

The therapeutic deductions are to restore the too suddenly abandoned drug, and then withdraw it gradually, supplanting it by the most sustaining nutrition, medicinal substitutes and sleep.

The chief practical point from this view is that it is not the presence of the poison that makes the mischief, though the poison has made it, but its absence, which reveals the damage. The poison is, in fact, in a measure, like the hair of the dog that heals the bite. Like relenting violence, if allowed to moderately handle its victims, it helps to lift up and heal the wound it has made, and soothe away the pain it has caused.

We have a damaged nervous system to repair, and we should only withdraw the opium as we reconstruct the damage it has made, because while it wounds, it also sustains. It is not enough to remove the foe, but we should repair the effects of his invasion as well; and while we should place the enemy in retreat, and drive him out, we should sustain the friend we fight for at the same time, and strengthen his powers of resistance.

I know, from ample observation in cases when it has been tried by others, and the patients, with minds deranged in consequence, have fallen into my hands, that Obersteiner's method of sudden weaning is cruel, dangerous and unscientific, for in the sequences of chronic opium poisoning, we have diseased conditions in which the central nervous system has been so crippled that it needs the sustaining crutch of opium; and opium is not the only article of the materia medica that has the power to both pull down and prop up the system.

Such reasoning, as says the cause must be taken absolutely and at once away, is sophistical and fallacious, because of the fact here maintained, that a pathological condition abides after the agent that caused it has left the system, and the agent that made the mischief has, in lessened doses, most benignant compensatory and sustaining powers.—*Weekly Medical Review.*

FARADIC ELECTRICITY IN RIGIDITY OF OS UTERI DURING LABOR.

The following short article is of sufficient interest to bear reproduction:

A primipara was brought during a premature labor, occuring at seven months of pregnancy, to the New York Infirmary in a state of considerable exhaustion resulting from the prolonged labor pains. The external os was tetanically rigid. I did not see the patient until after she had been for some time in the hospital, and the physicians in charge, Drs. Blackwell and Cushier, had used all the most usual and approved means of relaxing the rigidity of the os, but without the slightest effect. Even chloroform had failed, and the increasing exhaustion of the patient rendered this method hazardous to be persisted in. It seemed to me that the tetanized condition of the os, which would barely admit the tip of a finger, and resisted manual dilatation to an extraordinary degree, was precisely due to the exhaustion of the nerve force destined to be uterine fibre. The tetanus would then be analogous to the intestinal cramps of lead colic; to those induced in both the rectum and the genital canal by compression of the aorta (in rabbits), or, on an even more general scale, to the universal muscular contractions of *rigor mortis.* If this were true—and surely the clinical history of cases of rigid os uteri tends to support the hypothesis—local stimulation of the exhausted nerve fibres was indicated as the remedy.

A small electrode was applied to the os, and connected with a faradic battery, the other electrode being held in the patient's hand. It was considered advisable to avoid passing the current through the body of the uterus, lest new contractions should be excited and struggle in vain against an impassible resistance. The application was continued for fifteen minutes. Immediately afterwards, and for the first time, Dr. Cushier succeeded in inserting a finger into the cervical canal, and after some further effort, in gradually effecting manual dilatation and delivering the patient by the forceps. Stimulus to the nerve fibres thus seemed to have succeeded in inhibiting the spasm into which the muscular fibre had been thrown, as is habitual when left to its own irritability.—Mary Putnam Jacobi, M. D., in *American Journal of Obstetrics,* January, 1886.

THERAPEUTIC PROGRESS.

NARCEINE AS AN EXPECTORANT.—Brown-Sequard recommends this drug in cases of bronchitis with profuse viscid expectoration. The dose is from one-half to one grain in pill form.

GRINEVISKI'S OINTMENT FOR ACUTE RHEUMATISM.—

℞.	Oil of hyoscyamus	℥j.
	Mercurial ointment	ʒij.
	Extract of aconite	ʒj.

SALICYLATE OF COCAINE.—This compound is recommended for the releaf of asthma. Several cases are reported which were treated successfully with hypodermic injections of the drug. The simultaneous administration of bromide of ammonium augmented the action of the cocaine.

Morrhual.—Chapoteau first isolated this principle from cod-liver oil. It appears in the form of crystals, having an aromatic odor and a sharp bitter taste. It is administered most conveniently in capsules, three drops representing a drachm of the oil. Morrhual does not cause nausea, but rather improves the appetite. It is highly recommended in early tuberculosis, scrofula and rickets.

Amyl Nitrite in Cocaine Poisoning.—Schilling reports a case of poisoning by the injection into the gums of two drops of a twenty per cent. solution of cocaine. Amaurosis, deafness and complete loss of motion and sensation occurred. Regarding the phenomena as due to cerebral anæmia consequent upon the contraction of the blood-vessels, he caused the patient to inhale nitrite of amyl, by which she was rapidly relieved.

Ragweed as a Hæmostatic.—The virtues of ambrosia artemisiæfolia as a hæmostatic is given by Dr. Hill, of North Carolina, in the report of an aggravated case of hæmophelia, in which the blood oozed from the nostrils, gums and urethra. The patient, a child six years of age, had been bleeding for several days, and the usual remedies had been employed without effect. An infusion of ragweed was then given and hæmorrhage promptly ceased.

Santonate of Atropine.—This, a compound of atropine and santonic acid, is recommended by Bornbellon as presenting advantages over any other salt of atropine for ophthalmic purposes, a solution of it being perfectly non-irritating and not liable to fungoid growth. The action is said to be mild and to resemble that of homo-atropine; the midriatic action equals that of atropine sulphate; one drop of its solution of one centigram in twenty grains of water is sufficient to dilate the pupils, the dilation disappearing in from twelve to twenty-four hours.

Salol.—This substitute for salicylate of soda was first prepared and studied by Professor Nencki, of Bern. It is a salicylate of phenol, which, when acted upon in the intestine by the pancreatic fluid, is split into phenol (forty per cent.) and salicylic acid (sixty per cent.). It is given in powder or tablet form in fifteen grain doses to adults, three and four times a day. It is claimed to be free from the unpleasant taste of salicylate of soda, and does not produce the gastric disturbance, tinnetus and other head effect of this drug.

Calomel as a Diuretic.—This drug is recommended in cases of cardiac dropsy, combining three or four grains with an equal amount of jalap, and giving this dose from two to four times daily. According to Jandrossik, calomel appears to have a specific action in dropsy of cardiac origin; it does not cause diuresis in healthy subjects, and is valueless in cases of renal dropsy. It is generally sufficient to continue the treatment for two days, then wait until diuresis occurs, which is noticed on the second, but sometimes as late as the fourth day, after the first administration of the remedy.

Dover's Solution.—Dr. J. D. Coleman originated this preparation, which is prepared as follows:

℞.	Acetate of morphine	gr. lx.
	Dilute acetic acid	fl ℥j.
	Dilute alcohol	fl ℥vij.
	Wine of ipecac	fl. ℥ij.

Dissolve the acetate of morphine in the acetic acid, add the dilute alcohol and wine of ipecac, and mix the whole thoroughly. Set aside for twenty-four hours, then filter through paper.

Inflamed Nipples.—Dr. Wilson:

℞.	Nitrate of lead	gr. x–xx.
	Glycerine	℥j.

M. Apply after suckling, the nipple being washed before the child is again put to the breast.

Dr. Playfair:

℞.	Sulphurous acid	ʒss.
	Glycerite of tannin	ʒss.
	Water	ʒj.

M. Apply after suckling.

Dr. Barnes: After washing away remains of milk after nursing smear with salve made of—

℞.	Lead water	ʒj.
	Prepared calamine powder	ʒj.
	Glycerine	ʒj.
M.		
	Vasaline	ʒvij.

Pencils of Ointments and Pastes.—Pencils of stiff ointments, and others soluble in water, are largely employed in dermatological practice by Dr. P. G. Unna, of Hamburg (*Monatshefte fur praktische Dermatologie*, 1886, Number IV; *Centralblatt fur die gesammte Therapie*, July, 1886, page 324). The ointment pencil (*Salbenstift*) is termed *stilus unguens*, and the paste pencil (*Pastenstift*) *stilus dilubilis*. The following formulæ are given:

Stilus acidi salicylici dilubilis:

Precipitated salicylic acid	10 parts.
Powdered tragacanth	5 parts.
Powdered starch	30 parts.
Powdered dextrin	35 parts.
Powdered white sugar	20 parts.

This is of the strength of ten per cent. The next formula is for a forty per cent. compound:

Precipitated salicylic acid	40 parts.
Powdered tragacanth	5 parts.
Powdered starch	10 parts.
Powdered dextrin	25 parts.
Powdered white sugar	20 parts.

Stilus arsenico-sublimatus dilubilis:

Powdered arsenious acid	10 parts.
Corrosive sublimate	5 parts.
Powdered tragacanth	5 parts.
Powdered starch	30 parts.
Powdered dextrin	30 parts.
Powdered sugar	20 parts.

Stilus cocainœ dilubilis:

Cocaine hydrochloride	5 parts.
Powdered tragacanth	5 parts.
Powdered starch	35 parts.
Powdered dextrin	35 parts.
Powdered white sugar	20 parts.

Stilus iodoformi dilubilis:

Iodoform	40 parts.
Powdered tragacanth	5 parts.
Powdered starch	10 parts.
Powdered dextrin	30 parts.
Powdered white sugar	15 parts.

Stilus acidi pyrogallici dilubilis:

Pyrogallic acid	40 parts.
Tragacanth	5 parts.
Powdered starch	13 parts.
Ethereal extract of orleana	2 parts.
Dextrin	20 parts.
Powdered white sugar	20 parts.

Stilus resorcini dilubilis:

The purest resorcin	40 parts.
Powdered tragacanth	5 parts.
Pure starch	10 parts.
Powdered dextrin	25 parts.
Powdered white sugar	20 parts.

These mixtures are made into pastes with a small amount of water, and the pencils are made of the size of an ordinary lead-pencil and of about the length of the finger. They may be coated with tin foil, and those containing a mercurial with collodion.

Stilus acidi borici unguens:

Boric acid	20 parts.
Yellow wax	40 parts.
Olive-oil	35 parts.
Rosin	5 parts.

Stilus cannabis unguens:

Extract of cannabis indica	10 parts.
Rosin	5 parts.
Yellow wax	45 parts.
Olive-oil	40 parts.

Stilus acidi salicylici unguens:

	Forty per cent.	Ten per cent.
Precipitated salicylic acid	40 parts.	10 parts.
Rosin	5 parts.	5 parts.
Yellow wax	25 parts.	45 parts.
Olive-oil	30 parts.	40 parts.

Stilus chrysarobini unguens:

Chrysarobin	30 parts.
Rosin	5 parts.
Yellow wax	35 parts.
Olive-oil	30 parts.

Stilus hydrargyri oxidi rubri unguens:

Red oxide of mercury	5 parts.
Powdered venice soap	10 parts.
Rosin	5 parts.
Yellow wax	40 parts.
Olive-oil	40 parts.

Stilus iodoformi unguens:

Iodoform	40 parts.
Rosin	5 parts.
Yellow wax	30 parts.
Olive-oil	25 parts.

Stilus iodi unguens:

Pure iodine	20 parts.
Rosin	5 parts.
Yellow wax	40 parts.
Olive-oil	35 parts.

Stilus acidi pyrogallici unguens:

Pyrogallic acid	30 parts.
Rosin	5 parts.
Ethereal extract of orleana	2 parts.
Yellow wax	35 parts.
Olive-oil	28 parts.

Stilus resorcini unguens:

Pure resorcin	30 parts.
Rosin	5 parts.
Yellow wax	35 parts.
Olive-oil	30 parts.

Stilus saponis, picis et ichthyoli unguens:

Dry potash soap	10 parts.
Pitch	10 parts.
Sodium thioichthyolate	5 parts.
Rosin	5 parts.
Yellow wax	40 parts.
Olive-oil	30 parts.

Stilus sublimati unguens:

Powdered corrosive sublimate	1 part.
Powdered venice soap	25 parts.
Rosin	5 parts.
Yellow wax	35 parts.
Olive-oil	34 parts.

Stilus sulphuris unguens:

Precipitated sulphur	20 parts.
Yellow wax	40 parts.
Olive-oil	35 parts.
Rosin	5 parts.

Stilus zinci oxidi unguens:

White oxide of zinc	20 parts.
Yellow wax	40 parts.
Rosin	5 parts.
Olive-oil	35 parts.

Stilus zinci sulphocarbolatis unguens:

Sulphocarbolate of zinc	5 parts.
Powdered venice soap	15 parts.
Rosin	5 parts.
Yellow wax	40 parts.
Olive-oil	35 parts.

—*New York Medical Journal.*

SPECIAL NOTICES.

A. L. Anderson, M. D., of Rhea Springs, Tennessee: I have the pleasure to say that I have used Peacock's bromides with entire success in vertigo and congestive headache in the case of my wife. It is the best brain and nerve sedative I ever used.

To Prevent Miscarriage.—I have used aletris cordial (Rio Chemical Company) on a lady who had been in the habit of having miscarriages at a certain time. A few days ago I learned that she will go to her full time. I attribute this to your cordial, and I consider it an excellent preparation.—F. H. L. Smith, M. D., Natchez, Mississippi.

In the decline of life when exhausted nature habitually repels the restorative influence of sleep, there is nothing so suitable to induce healthful repose as one-half to one teaspoonful of bromidia at bed-time. It may be taken for years in the same dose, with the same effect, and without detriment.

Constipation in Pregnancy.—I used acid mannate with great satisfaction in the case of a young lady in her first pregnancy. She was most obstinately constipated for five months. She was entirely cured by the use of acid mannate, completed her term, and has remained well ever since—now four months. —F. W. Bathrick, M. D., Battle Creek, Michigan.

Nervous Prostration.—E. M. Kirby, M. D., 1606 North Broad street, Philadelphia, Pennsylvania, says: I used celerina in the above disease with marvelous results. Mrs. W., aged fifty, for years unable to enjoy or have a good night's rest, flushes of heat and nervous shocks when sleeping, awakening her, loss of ambition, easily startled under any circumstances, a long time recovering from the shock, tremulousness and weakness following, with palpitation of the heart, showing a weakness of the solar plexus and consequently easily irritated, and at times almost despondent even approaching melancholia.

Celerina has produced an entire change in all these symptoms. She sleeps all night and is refreshed. Has no shocks or flushes of heat and is calm and as composed as a person should be.

TWO CASES OF GRANULAR DEGENERATION OF THE CERVIX UTERI TREATED WITH S. H. KENNEDY'S EXTRACT OF PINUS CANADENSIS.—A short time ago I procured from the Rio Chemical Company some of the above drug, and also of the aletris cordial. I had at the time two patients under treatment for granular degeneration of the cervix uteri, also known as granular ulcer.

Case I.—The first case a multipara, aged thirty, had given birth to her first child eight years ago. An interval of seven years without any pregnancy elapsed, owing to leucorrhœa and chronic endometritis, which were cured by the ordinary treatment, occupying however nearly twelve months. After being cured, pregnancy of her second child occured; but again within six weeks after the birth of this child, in November, 1885, the granular degeneration manifested itself, and cervical catarrh, for which I put her under the usual treatment, iodised phenol, glycerine tampons, douche of water by the syphon uterine douche, etc., but slow progress was made. Still, progress was made. On receipt of the extract of pinus I directed my patient to mix a tablespoonful of it with water and use as a douche for two days. On my next visit I twisted a bit of cottonwool around a Playfair probe, dipped it in the pure extract of pinus, and after cleansing the mucus from the cervix, applied the probe charged with the extract to the canal. I then made a tampon and saturated it with the extract and applied it direct to the cervix, in two days removed and applied a fresh tampon saturated as before, then again passed Playfair's probe armed as before, afterwards directed my patient to use the extract with the douche; within fourteen days from the first application every trace of cervical catarrh and erosion had disappeared.

Case II.—H. G., aged forty, multipara, gave birth to her seventh child in September, 1885. No uterine trouble until December, when I examined her for pains and leucorrhœa; found degeneration of cervix with slight endometritis and hyperæmia of cervix, applied tampons saturated with glycerine, gave her ergot and cinchona, etc., used the douche for some time, but without any pronounced benefit. I applied S. H. Kennedy's extract of pinus canadensis as in former case; in addition, I gave her the aletris cordial on account of the thickened hyperæmic state of the cervix, and in the course of ten days, she was completely cured by these remedies. I think in pinus canadensis we have a good astringent with special healing properties for the uterus. The aletris cordial certainly seems to act as a uterine alterative and tonic.—Robert Gray, L. K. Q. C. P. I., L. R. C. P. Edinburgh, Armagh, in *Medical Press.*

THE
PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. NOVEMBER, 1886. NUMBER XI.

ORIGINAL ARTICLES.

A CASE OF ACUTE MANIA, WITH PERFECT RECOVERY.

BY HARRIET L. HARRINGTON, M. D., BOSTON, MASSACHUSETTS.

July 19, 1885, I saw Mrs. H. for the first time professionally, a lady about thirty-seven years of age. She had always enjoyed good health up to one year previous; when she lost her only child quite suddenly with diphtheria, and was herself quite ill with the same disease. Since then she has been very despondent at times, although apparently she seems happy. Was treated for uterine trouble some time before. I found her suffering from a severe cold, with slight cough. Temperature 101.5°. Complained of much pain in back, also of tenderness in right iliac region. Urine scanty, and high colored. Uterine examination showed some congestion and tenderness, with slight hypertrophy.

℞. Liq. ammon. acetate,
Spts. eth. nit.,
Aqua camph., āā............................ ℥i.
M. S. Teaspoonful every three hours.

The following day the temperature was 102°; pulse 120. Examined lungs and found them normal, but she still coughs, and raises a little. Flaxseed tea with lemon—to be drank freely. Also gave—

℞, Pulv. Doveri.................................... grs. x.
Quin. sulph.................................... grs. v.
M. S. To be taken at night in a capsule.

September 21: Temperature 102.2°; pulse 104. She had passed a restless night. The abdominal tenderness seems to be increasing.

℞. Ung. stram. et iod.
S. Use over abdomen.

Respiration hurried, and roughened. Some râles over bronchi.

℞. Ammon. carb................................ ʒi.
Syr. tolu,
Aqua cinnam.,
Aqua, āā..................................... ℥i
M. S. Teaspoonful every two hours.
℞. Quin. sulph................................ grs. v. twice daily.

On the 23: Temperature 103 5°; pulse 120. Hot, and restless; coughs a good deal. I added morphia one-sixteenth grain to each dose of the cough medicine. This quieted the cough, and she perspired freely. She was sponged off twice daily.

July 25: Temperature 101.6°; pulse 112. Very nervous; otherwise she seemed better. As her cough medicine was out, I ordered the following:

℞. Morph. sulph................................ gr. i.
Spts. eth. nit.,
Vini ipecac.,
Syr. tolu,
Aqua cinnam., āā.......................... ℥i.
Aqua, ad. q. s.................................. ℥iv.
M. S. Teaspoonful every four hours.

She did not care to eat, so I ordered milk diet, giving two drachms of brandy every two hours in eight ounces of milk. At 6 P. M., I was sent for and found the patient lying in a semiconscious condition, straight and rigid, wandering when she talked, feet cold, and perspiring freely. She did not seem to be in pain, but said her head felt badly. It was difficult to keep her thoughts on any subject, or to get a reply. Temperature 101.6°; pulse 120; respiration 40. Coughed some, and raised freely. I examined her lungs and found respiration increased over upper part of both lungs, and an occasional râle over larger bronchi; pulse bounding and full. I discontinued all medicine and asked for consultation, but her friends said they were satisfied, and would rather wait a day or two, so I left her for a few hours, telling them to make her as comfortable as possible, keeping her feet warm and head cool. At 9 P. M., I saw her again. She seemed more like herself, although very restless and talkative, wandering most of the time. Her feet were warm, and her head not as hot. I ordered for the night—

℞. Tr. digitalis.................................. gtts. iii. every two hours.
Ammon. carb.................................. grs. iiss. in milk every two hours.
Elix. val. ammon., teaspoonful every hour if needed to quiet her.
Ice bag to head. To give as much liquid diet as she would take.

The next morning she was more quiet. And had passed a comfortable night. Had taken two doses of the elixir, one at 11 and one at 12 o'clock, and slept naturally four hours. Temperature 100.6°; pulse 120. Coughs a little, raises freely; bowels free; urine free. Takes plenty of nourishment. Head cool, feet warm. She says queer things, and got out of bed once and walked around the room. The digitalis was discontinued.

July 27: Patient raving—took two to hold her. She has refused all medicine and nourishment since midnight. Temperature 101°; pulse 120. Roughened breathing through both lungs but no râles. Dr. Bolles, of Dorchester, saw the case with me in consultation. He did not offer a diagnosis, but thought we had better watch the case, and wait for farther developments. He advised fifteen grains of chloral once in two hours, for two doses; then once in four hours: also moist packs over right lung. At 3 P. M., I found her sleeping quietly. She had taken two doses of the chloral. She coughs and raises a good deal but will not spit.

℞. Chloroform.............. .... ʒss.
Syr. tolu,
Aqua, āā.................................... ℥i.
M. S. Teaspoonful *ad. lib.* to quiet cough.

9 P. M.: Has retained one pint of milk by rectum. Kept calling for cider, and drank it when given to her. Is very restless.

July 28: Her talk is very low (such as would shock her was she herself). I passed the catheter, and drew off six ounces of urine, very acid. She is very wild, having a great desire to crowd down in bed. Temperature 100.4°; pulse 120. Fifteen grains of potassium bromide given every four hours. Examined lungs and found exaggerated respiration, with an occasional râle. Bronchopony at lower part of right lung, posteriorly. Symptoms seem like low typhoid fever. 5 P. M.: The nurse sent for me, as patient had refused food for several hours: would spit anything out that was put in her mouth, and tried not to retain anything by rectum. I remained with her three hours, and succeeded with much coaxing, and some force, in giving one and one-half pints of milk during this time. I also gave her medicines. She will not call for the bed pan—seems very wild. Has had one-fourth grain of morphia by rectum. Temperature 101.6°; pulse 120.

July 29: Still very wild, and had taken more nourishment, but vomits all her medicine. Sixty ounces milk taken to-day. Medicines given by rectum retained as follows:

6 A. M.: Twenty grains of chloral.

8 A. M.: Forty grains of potassium bromide.

10 A. M.: Forty grains of potassium bromide with twenty grains of chloral.

11 A. M.: Two grains of codeia.

12 M.: One-eighth grain of morphia sulphate.

All this in six hours without the least effect: every dose given seemed to make her more wild. She did not close her eyes to sleep even for a moment during the day or night.

July 30: Dr. Edes, of Boston, met Dr. Bolles, and myself in consultation.

Diagnosis.—Acute mania—hope only temporary, but it may be permanent. Dr. Edes advised—

℞.	Fl. ext. conium	gtts. xxx.
	Tr. opium	gtts. xx.

To be given by rectum.

This dose of conium to be repeated every four hours, but the opium only as needed to quiet her. After the second dose of conium she seemed frightened, and after the third dose was more noisy, but not as strong: hesitated in her speech, and her eyelids drooped. After the fourth dose of conium she was so wild and noisy that it was discontinued, and the bromide ordered *ad libitum.*

July 31: During the past twenty-four hours she has taken one hundred and sixty-five grains of potassium bromide. Pulse 120.

Patient has ceased all talk, takes nourishment, and will answer questions. About noon she became quite natural for about an hour, but cried a good deal, and toward evening was more violent than ever. The bromide and chloral were given freely during the night—one hundred and twenty grains of the former and sixty grains of the latter; also one hundred and twenty drops of the conium. It would quiet her a little at times, but nothing lasting. The conium tended to weaken her. Tongue thickly coated. Pulse down to 100. Slight consolidation at base of right lung, with an occasional râle.

August 7: During the past week there has not been much change, patient talking and muttering to herself almost constantly. She has been kept under the influence of the bromide and chloral as much as possible: has had as much as two hundred and thirty grains of the bromide and seventy grains of the chloral, during twenty-four hours. To-day she seems more like herself—has been quite rational for eighteen consecutive hours, longer than at ony other time. Bowels are kept regular with bitter water.

August 12: She has cried a good deal during the past few days. Has taken less medicine to quiet her, sometimes only needing one dose of thirty grains of bromide to make her pass a quiet night, but to-day she thinks we are trying to poison her, and begs piteously for us not to force the food. She complains that her head feels queer. During all the time her talk has been mostly concerning her child that she lost a year previous to this.

She has imagined herself dead; has been through confinement several times, and it would seem that she was suffering as a woman would giving birth to a child, it all seemed so real to her; then she did a great deal of imaginary telegraphing to her distant friends, especially to an aunt across the waters who had been insane at one time (only for a short time during the menopause.; there has been no hereditary insanity in the family); she has tried to get away from her nurses; to jump out the window, thinking her husband was in trouble and needed her; she insisted upon having her room darkened, the pictures all to be turned face to the wall.

Part of the time I had three nurses to take care of her, as it was necessary to have two with her all the time. She was very sly at times, and when violent would break things, not even having any respect for my thermometer; would tear things; bite her drinking cup, taking a piece out of it, or bite her drinking tube, so we had to watch her very closely.

August 14: As she still continued to be violent, Dr. Folsom, of Boston, was asked to see the case, with regard to sending her away for a time to some institution. His diagnosis was of course the same as all the rest had been—acute mania—and he advised sending her away for a time as he thought she would have a better chance for complete recovery, although it was doubtful. We did not consider the home she was in a proper place for her, as it was near steam and horse cars, and the streets were very noisy at night as well as day, so it was decided to send her to a quiet home where a few such cases were cared for. During the next three days before she left home she cried a great deal; seemed frightened at everything; had a frightened look; feared we would poison her, or were planning against her.

On August 17 she was taken in a carriage (the nurse and myself going with her) to the home before mentioned, a beautiful large house, with large grounds, in a secluded spot. Not a sound could be heard excepting that made by the occupants of the house. She had two very pleasant rooms. In her bedroom there was only one window, and that in the upper part of the room. A very pleasant woman had the entire charge of her, but of course everything was so arranged that she could not hurt herself, and a gentleman attendant within calling distance.

Her diet ordered from the first was the following:

Three to five pints milk daily.
Three to five raw eggs daily.
One-half ounce brandy twice daily in milk.
Three to five ounces beef juice daily.

She improved from the first, as she told me afterwards. The quiet and the perfect seclusion were everything to her, no person but her nurse and doctor being allowed to see her. She slept from five to seven hours at a time, and often without any quieting medicine; sometimes taking ten grains of chloral with twenty grains of bromide during the night, and only once was this repeated. She was not allowed a thing which should remind her of her home, or the past. A little later she was given two grains of quinine twice daily, but this was the only medicine that was given her. The doctor in charge told me that cases of acute mania generally have some lung complications—often quite serious—and that the temperature may vary greatly, even within an hour's time. Of all the medicines given to quiet her none helped her as did the chloral and bromide. The perfect quiet was more to her than all the rest. She remained in the home about two months, and came out perfectly cured, and better in health than she had been for some time.

CLINICAL LECTURES.

CLINICAL REMARKS ON A CASE OF NECROSIS.

BY DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY GEO. A. HENDRICKS, M. D.

The first glance tells you that this boy's leg is in a very bad condition. Its external aspect shows that the limb has been the seat of very extensive and destructive disease. On the outside of the thigh, near the knee, you observe a large scar. At this place a large opening formerly existed, which could have been produced spontaneously, by the destructive inflammatory process that has existed, and the pressure of the confined fluid; but in this case the surgeon anticipated the result, and hastened the process by opening into the abscess. On the front of the thigh just above the patella a spicula of dead bone is protruding through the skin. The joint is greatly deformed, and the landmarks which are so characteristically prominent on the sound limb are, on the diseased limb, not in their normal relation and position, and are obscure and difficult to define. The joint permits of but little motion; the hamstring tendons are rigid, and, if the joint were not partially ankylosed, would not permit the leg to be extended to the straight position.

These are the more prominent external features, but if we could see below the surface we would behold much more striking evidences of disease. We would see the lower end of the femur necrosed, rough, irregular and worm-eaten, and surrounded by a shell of new bone, for I feel that it is greatly enlarged; the surrounding soft structures—the muscles, tendons, nerves and blood-vessels all bound together in a mass of inflammatory new formation; the histological elements of these structures changed, and invaded by inflammatory exudation. In short, the whole anatomy of this part of his limb would appear greatly degenerated.

The boy informs us that his trouble began in August, 1885, with pain and swelling in his left knee. The pain was severe, and was worse at night; the swelling extended up the thigh, and increased until the thigh was double its normal size. His thigh was then lanced, and he thinks about a gallon of yellow matter was discharged. The other openings formed afterwards. No dead bone came away until a few weeks ago, when a few small fragments came out of one of the openings. The openings have constantly discharged since they opened, and the discharge is now of the most fœtid character.

This state of affairs is always the result of inflammation, which has its origin, in the great majority of cases, in the periosteum, but it may start in the bone tissue or from the lining membrane of the medullary canal. It is not always easy, and sometimes impossible, to determine from which one of these sources the disease takes its start. In the early stages of the disease, this question may be one of considerable importance, but when it reaches this stage it is of no consequence. In this case the original inflammation has exhausted itself. The injury to the bone and surrounding tissues, which we see, are its results. The limb, however, is not free from inflammation, but that which is present is reparative in character. The discharge that escapes through these openings is evidence that there are in progress rapid and destructive tissue changes; these are nature's efforts to cast off and remove the dead bone.

When necrosis is the result of an inflammation, no matter where it had its origin, whether in the periosteum or in the bone tissue, the process of death is the same. When the bone or its membrane becomes inflamed, there is a rapid infiltration of the tissue from the escape of fluid through the blood-vessels. Even if the inflammation is confined to the periosteum, the vessels that distribute from it to the bone become involved in the exudative process. The inflammatory products are poured out into the bony canals, around the vessels, which are closed by the pressure. The circulation is cut off, and the bone dies for want of nutrition. It was formerly thought, when the death of bone was due to periostitis, that the exudate separated the periosteum from the bone, and in this way the blood supply was cut off; but this view has been found incorrect. Clinical experience, and the condition of the bone when examined in the inflammatory stage of the disease, verify the former theory. After the disease has gone on to the stage of suppuration, the periosteum becomes separate. But in cases of chronic periostitis, where I have made free incisions and found the bone bare and rough, I have seen it revivify and recover. In these cases, I believe the healing process set up to repair the wound, increased the activity of the absorbents which carried away the exudate, and the circulation in the bone was re-established, probably through the vessels of the medullary canal.

Necrosis may be the result of a direct injury to the bone, but in most cases it follows inflammation, which most frequently begins in the periosteum. Inflammation of this membrane can be brought about by a great variety of causes. In this case I believe it was due to going into the water. In boys this will be found to be a very common cause of the disease, and will be found true especially of boys with a delicate or strumous constitution. It is thought, but I claim erroneously, that going into the water when in a heated condition is dangerous and liable to be followed by serious results. The danger is not in the high degree of heat, but from the state of the system. A bath to be taken without danger must be followed by a reaction. The heart's action should be increased, the skin should glow, and a sensation of general warmth should be felt. If, however, the circulation be feeble, if the system be in a low state of vitality, or if from long physical exertion it is not capable of a strong reaction, going into the water is dangerous. The immediate effect of suddenly entering cold water is a shock. The peripheral nerves are irritated, which causes the sudden contraction of the capillaries of the skin. This drives a great amount of blood back into the deeper tissues and organs, and for a time they are in a state of congestion. This is the period of danger, and the amount of danger is in direct proportion to the duration of this period. If it is short, and immediately followed with a sharp reaction, it is harmless, and in some conditions a benefit. The bath, then, to be of therapeutical value, must be followed by a strong reaction. But suppose this condition of shock, or of internal congestion, be unduly prolonged, from remaining long in the water, or from an enfeebled or exhausted condition of the heart, the function of some organ must be imperilled. The strong, vigorous boy may dash over the fields to the brook, and when thoroughly heated can harmlessly plunge into and remain in the water a short period, because when he comes out his heart will continue its increased activity, and all the surface will be in a glow. Not so with the laborer who is tired and exhausted, or the boy who from long exposure has enfeebled the vaso-motor forces. They will come from the water pinched in countenance, skin blanched, nails and lips blue, a condition not favorable to reaction.

Every year we receive in the hospital many cases of necrosis, and in the great majority of them, the cause is easily traced to long exposure to damp or wet. In this case I believe the inflammation and necrosis have been due to going into the water repeatedly, and remaining in too long.

These remarks apply with equal force to the bath in any of its forms. It is not safe for the weak and feeble, and is particularly dangerous to those who have reached the age when the vital forces are on the decline.

ORIGINAL TRANSLATIONS.

GERMAN LITERATURE.

TRANSLATED BY GEORGE GUNDLACH, ANN ARBOR, MICHIGAN.

ON THE ETIOLOGY OF NEURALGIA.

The fact that the peripheral nerves are subject to an essential disease is now fully established, as may be also clinically observed of other nerves by the pain felt along their track, even though the section of the nerve does not reveal pathological evidence of neuralgia. Nevertheless, in the majority of cases neuralgia is revealed by its symptomatic phenomena, and primary disease of the peripheral nerves is of comparatively rare occurrence. Thomeyer recently published some observations on this subject; they were made about the same time as my own and nearly coincide with them.

Recently I had opportunity of making observations on a number of cases of neuralgia of the sciatic, the radial and the inter-costal nerves in patients whose urine contained masses of uric acid crystals and amorphous and crystaline sodium urate. Since three of the above neuralgias were removed when that treatment was adopted which is employed against the formation of gravel in general (alkaline carbonates) the etiological connection of these co-incident phenomena may be pre-supposed.

The cases under consideration occured partly in hospital, partly in private practice. I will give enough of their history to present a distinct picture of the phenomena to the reader.

Case I.—Mrs. B. H., aged thirty, of strong constitution, possessing a sufficient amount of healthy adipose tissue, came under my treatment in August 1884. She was free from herditary taint; complained for one year of pain along the track of the sciatic nerve of both extremities and also radiating over the sacral region. The pain varied in intensity but never ceased entirely; after certain injuries, however, it became very intense. The patient noticed, her father being a manufacturer of spirits, that partaking of alcohol increased her sufferings (Garrod). Then lancinating pains also arose along the branches of the brachial plexus, especially along the course of the right radial nerve. On flexion of thigh on abdomen with leg extended these pains also arose, but not when the thigh was moved toward abdomen with leg flexed (Beurmann).

There were no rheumatic phenomena; sensation and motion intact.

Just previous to coming under my care, the patient had received thermal treatment at Teplitz mineral springs; at the same place she was also put on an extended course of massage and treatment with the constant electrical current, all without the least effect. The urine yielded rectangular and rhombic prisms of uric acid crystals, also urates.

In general the presence of uric acid and urates in the urine is certainly not uncommon, but it drew my attention especially in this case because the above well tried anti-neuralgic course of treatment produced no improvement. I was at last forced to take the view that the neuralgia of this patient was not an essential disease but bore a causal relation to the large quantity of urinary concresions passed. Consequently, I commenced treatment with Carlsbad water. Four or five days after taking the same, a quantity of concresions resembling sand was passed with the urine; after about fourteen days of this medication the pain entirely disappeared.

The patient informed me by letter that she visited Carlsbad in 1885 and that the pain had not re-appeared.

Case II.—A second and analogous case I observed in May, 1885, at the garrison hospital number eleven in Prague. A foot-soldier of the twenty-eighth infantry regiment, K. F., aged twenty-one, without hereidtary taint, suffered from time to time for one year with pain which was distributed over the sacral region, the branches of the right sciatic nerve and the right intercostal nerves. Regularly after the attacks of pain there was noticed on the integument a white substance which a chemical test proved to consist of urates. The patient on account of his suffering had been at a civil hospital where he was treated with salicin, iodide of potassium and electricity, but without effect. Patient had never been infected and had no enlargement of the spleen.

On account of the above mentioned case and the white substance found on the skin, my attention was directed to the urine, which I found to contain a concresion consisting of uric acid and urates; no sugar. The patient was given Carlsbad water and cured.

Since then I have paid especial attention to the urine of neuralgic patients coming under my direct care. Forty-eight cases have presented themselves; of these, only the following case, occuring at the military hospital in Gernowitz, is of a similar nature:

Case III.—Infantryman W. N., of forty-first infantry regiment, came for treatment in October, 1885. Patient aged twenty-one; no hereditary disease evident; complained of pain along the branches of the right sciatic nerve and over the sacral region; no enlargement of spleen. Inspecting the urine a concresion consisting of uric acid and urates was found. Carlsbad water was given and cure effected.

How shall we explain the causal relation between the neuralgic pains and the appearance of concresions in the urine? For such a connection is at once suggested, when it is known that in these cases, with the disappearance of the concresions, the pain also ceased. In general we must grant that the urinary concresions, since the minute grains in their passage through the ureters are offered no resistence, produce only a minimum of irritation and especially cause no, or only a small amount of, pain in the back. Much less can the pain felt along the sciatics, the brachial plexus or the intercostal nerves be explained in this way. Even granting that the passage of a large calculus through the ureter may cause pain radiating into the thigh and testicles, it still offers no explanation of the long duration of pain mentioned above, by coincidence of passage of the dust-like urinary concresions.

This all appears the most plausible when we recur to the connection between urinary concresions with true gout and true nephrolithiasis respectively (Erasmus). This method of reasoning was also adopted by Thomeyer in his observations before mentioned. Attacks of gout may alternate repeatedly with attacks of nephrolithiasis in persons afflicted with the former disease. Lecorche even holds that gout and nephrolithiasis, the latter of which is only taken into consideration in so far as it is the expression of the pathological production of uric acid in the organism, are phenomena due to the same pathological processes.

Garrod was the first to assert that in gout, during the time of an attack, the quantity of uric acid in the urine is below the normal, while in the blood it is above. This accumulation of uric acid in the blood (intermitting increased formation of uric acid—Ebstein) is said to be the cause of gout; and according to him, concresions in the urine also appear in the course of the disease.

Lecorche, who suffers with gout himself, looks upon the formation of urinary concresions as a symptom of gout. He holds that persons who appear threatened with gout and who, *de facto*, are later attacked; pass just previous to the appearance of the attack and while still apparently healthy, an increased quantity of urine per twenty-four hours; the total quantity of uric acid excreted in twenty-four hours is also greater than normal for the particular person. These symptoms, according to Lecorche, enable one to diagnose gout beforehand, in proof of which he cites cases.

Lecorche thinks he has demonstrated the identity of gout and urinary concresions. He holds, furthermore, that the increased quantity of uric acid in the urine just before an attack of gout is a pathognomic sign of the latter. If the increased amount of uric acid is sufficiently great, it may be observed macroscopically as urinary sand or gravel (uric acid is only slightly soluble in urine). If the view of Lecorche is correct, the explanation of our cases is not difficult, since Lecorche himself mentions two cases in each of which, attacks of sciatica, renal colic and gout alternated.

In the case of our patients, the kidneys were healthy, and the sand consisted of uric acid and urates; in these cases also, which Garrod mentions as of frequent occurence in gout, there were noticed neuralgias of various kinds, especially sciatica.

Accepting the above theory of Lecorche as correct, as Thomeyer also does, the neuralgias in our case may be termed "neuralgias of true gouty origin," as is at once suggested both from a therapeutical and a pathological stand-point.

The treatment employed, in its success, also points to the correctness of the view adopted. If gout depends upon the abnormal accumulation of uric acid in the blood, the alkaline carbonates, combined with large quantities of water, operate with effect. In what manner this takes place is not established; the alkaline waters may aid the oxidation of uric acid into urea thus preventing the accumulation of uric acid in the system. In what manner this is accomplished has not been demonstrated. Muench observed cases in which the administration of sodium carbonate was followed by the complete disappearance of uric acid. That the large quantity of water drank in gout, as well as lithiasis, may aid the solution and excretion of uric acid and urates, is easily understood and probable.

In short, whether gout be due to the impaired kidneys being unable to remove the uric acid, as Garrod once thought, or to an increased production of uric acid, causing accumulation of the same in the blood and tissues, or whether it be due to want of oxidation of uric acid, or to diminished alkalinity of the blood due to presence of acids, experience has shown the effectiveness of the above method of treatment, and it is to be highly commended in affections of a similar nature.—Dr. Ferdinand Kapper, k. k., Ober-Arzt.—*Allgemeine Wiener Medicinische Zeitung*, Number XXIII, 1886.

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

SERVICE OF DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY WILMOT F. MILLER, CLINICAL CLERK.

THREE CASES OF COMPOUND GANGLION OF HAND AND WRIST.

H. R., aged twenty-eight; American; farmer. Admitted March 11, 1886.

History and Previous Treatment.—His right wrist became painful, stiff and swollen in the spring of 1884, without any appreciable cause, and has remained so ever since. The whole hand is swollen and in a state of extreme tension, so that he cannot close his fingers. The swelling is more noticeable in the wrist. It gives him no pain except when he uses it. He has had it tapped once, but does not know the character of the material evacuated. At another time the swelling on the wrist was lanced and a number of small "fish-scale like" bodies were pressed out.

March 15—Clinic: Subcutaneous division of the anterior annular ligament was performed without any anæsthetic.

The patient has also a string of enlarged lymphatic glands on the right side of his neck. These enlargements have existed for more than two years. They are not materially increasing in size, and in no other region are the glands enlarged. For these lymphatic tumors the following was prescribed:

℞. Protiodide of mercury.................... gr. ¼.
Sig. To be taken three times a day.

March 18: Patient is rapidly regaining movements of his fingers and wrist. Left the hospital.

Mrs. C., aged forty-three. Admitted January 25, 1886.

History and Present Condition.—On her left little finger, a slight enlargement, and some pain began a year ago. The pain, which is described as a drawing or contraction, extended to the palm and wrist, at the same time the fingers becoming tense, and somewhat contracted. The wrist is swollen and red; and the palm contracted to that degree that her hand is of little use.

Clinic: Diagnosed as what is known as "palmar bursa," and is due to a low chronic inflammation of the palmar fascia, the anterior annular ligament, the tendons and structures passing under it.

Treatment.—It is proposed to treat this condition by a modification of an operation first introduced by Professor Syme, of Edinburgh, who cut down and divided the anterior annular ligament in order to relieve the tension of the parts. The modification of the original operation consists in dividing the ligament subcutaneously.

Operation.—Without an anæsthetic Professor Maclean divided the anterior annular ligament, which was extremely hard and tense. A loud grating was heard as the knife, with much difficulty, was made to pass through its fibres. When the division was completed the tense feeling was gone and all the tissues more lax than before.

February 1: Wound of puncture healed. Movements of thumb and fingers much more free than before the operation. Palmar swelling all gone.

February 26: An abscess which had formed on the wrist was opened by the resident physician.

March 4: Abscess healed. Wrist somewhat swollen and stiff. The application of a small fly-blister to be applied for the relief of this condition. Dismissed.

Mrs. G., aged sixty-three. Admitted March 4, 1886.

History.—A year ago she had an attack of pain in her left thumb. It was severe and throbbed like a felon. Soon after this her fingers and hand became contracted and her wrist stiff and painful when used. She has attacks of sharp, shooting pain in the arm and shoulder, which almost completely destroys its usefulness.

Clinic: This case is similar to that of Mrs. C., to which it was compared. The anterior annular ligament is placed under too great tension and compresses the structures passing under it. This pressure of the tendons and the nerve causes the deformity and the pain.

Operation.—Without an anæsthetic the anterior annular ligament was divided subcutaneously.

March 17: Much improvement in motion of wrist and fingers. Pain was relieved and has not returned since the operation. Dismissed.

SYNOVITIS OF WRIST-JOINT.

H. W., aged twenty-seven; German; farmer. Admitted February 4, 1886.

History, Former Treatment and Present Condition.—Last fall, one year ago, while plowing, the plow struck a stone and the plow handle, which was broken, struck his left hand in such a manner as to seriously sprain the wrist. It did not get strong, and four or five months later became swollen and quite painful. He used liniments without benefit, and then consulted a physician who applied a plaster cast. The cast was worn for three weeks. When it was removed the wrist was improved of the pain and swelling, but the joint was stiff. It is now ankylosed and slightly swollen. The radial side is red and there is some fluctuation. The hand cannot be closed.

Clinic: It is evident from the history, that at the time of the accident the wrist received a severe injury, which resulted in a very serious condition of the joint. The plaster cast, though it has left the joint stiff, did much to mitigate the course of the disease, and has most probably obviated a much less favorable result. A soft rubber bandage well applied, by stimulating absorption, may probably remove the effusion and inflammatory deposits in the joint, and assist in restoring motion.

February 8: There is a marked improvement. The exudate has diminished and motion is already more free. Gone home to continue treatment.

GENERAL CORRESPONDENCE.

PARIS LETTER.

TREATMENT OF FRACTURES BY MASSAGE—CHRONIC ZONA —HÆMATEMESIS NON-CATAMENIAL: OF HYSTERICAL ORIGIN—SMALL-POX AND VACCINATION—HYGIENE IN WARM COUNTRIES—OSSEOUS PANARES ANALOGOUS TO INFECTIOUS OSTEOMYELITIS—SULPHATE OF QUININE IN HÆMORRHAGE.

At a recent meeting of the Surgical Society in Paris, M. Trelat read a paper on the treatment of massage. He stated that it is of great importance in the first instance to effect coaptation if not by sature, by immobility, taking care not to neglect the muscles. With regard to fractures with effusion, but unaccompanied by displacement, compression and massage are doubtless good means to adopt, but the fragments when reduced should be maintained in position and thorough immobility preserved. These details should never be neglected. Three weeks are sufficient for immobilization for fractures of the radius without displacement. M. Trelat further stated that he had seen patients in a fair way to recovery in a week's time. For fracture of the fibula a plaster apparatus should be applied as promptly as possible at right angles with the foot. At the end of a month or even sooner it should be removed. When there is effusion of blood compression may also be practiced by adding cotton wool and an elastic substance to the plaster apparatus. M. Lucas Championniere, who attended the meeting, said that M. Bouynet, of Aix, had treated fracture of the radius in the manner described by M. Trelat, and the result had proved satisfactory. M. Championniere also quoted a case of fracture of the radius cured in eight days by massage; this phenomenon offers a new and interesting study.

M. Lendet, of Ronen, read the following communication at the medical congress at Nancy, on chronic zona which presents itself under three forms, namely: (1) Local chronic zona; (2) propagation of zona from one nervous branch to another; (3) remote and successive zona. Zona is often secondary to central, peripheral cerebral, and medullar lesion on the track of the nerves. The first case in which zona was observed was that of a child attacked by pulmonary tuberculosis especially developed on the same side as of that of nerve lesion. M. M. Chandeler, Fesser and Cadet de Gassicourt have collected notes of cases in which the influence exercised by chronic lesions of the pleura on the development of zona is demonstrated. A chronic form of zona has been remarked by M. Lendet in the case of two patients attacked by pulmonary tuberculosis simultaneously with recrudescence of tuberculous growth. The cutaneous lesion provoked new ulcerations of the cicatrization sometimes accompanied by pseudophlegmonous condition. This state may continue for three and even six months at the same time inducing cheloids and attended by knotty neuritis. Renewed zona in the same patient may occur in the same or other parts of the body.

M. Auguste Ollivier, of Paris, read an important paper at the congress at Nancy on hæmatemesis unaccompanied by catamenia. In cases of people of either sex actually suffering from hysteria, gastrorrhagia is met with and appears entirely due to special condition of the nervous system. This species of hæmatemesis, which is too often regarded as symptomatic of ulcer in the stomach, is in reality a form of local hysteria with gastralgia and accompanied by hæmorrhage. The absence of any disturbance of the nutrition, the suddenness of the onset, the fact that nervous disturbance and the prompt re-establishment to health may generally serve as indications of the true nature of the complaint.

The epidemic of small-pox which has ravaged Marseilles during the past year, appears to be on the decline, but in the space of twelve months one thousand nine hundred and seventy two deaths have occurred, half that number being children under ten years of age. The disease spread to many of the neighboring localities, in one of which, a girl in a state of convalescence carried it from Marseilles. Eighteen deaths from small-pox resulted, thirteen of which were owing to non-vaccination. These facts have again drawn the attention of the public to the necessity of enforcing compulsory vaccination; and what has recently occurred in Zurich is another convincing proof of the necessity of such a law being strictly carried out. In 1881 the mortality in Zurich was only seven small-pox to one thousand deaths from general maladies; in 1882, there were no deaths from it; in 1883 the number of deaths rose to eight. At that time the partisans of the anti-vaccination league were instrumental in getting the law on compulsory vaccination repealed; the following year fifteen deaths ensued; in 1885 the mortality rose to fifty-two, and this year it has amounted to eighty-five. Let us hope that a law may be established in France to enforce compulsory vaccination and re-vaccination which shall be carried out in all the chief towns of each department.

The following suggestions were read in a paper before the congress at Nancy by M. Maurel, of Cherbourg, with regard to the salubrity of houses and clothing in hot countries. Houses may be constructed either of stone, brick, straw or wood, and great attention should be paid to the way in which they are protected; they should have two stories; a more even temperature can be kept on the first floor, and paludal diseases are less to be feared on an upper story. Windows should have glass in them which is a protection against paludal and intestinal complaints, and also enables a lower temperature to be kept. All domestic offices should be at some distance from the house as a guarantee from fire, etc. Flannel is more hygienic in hot climates, slippers are not advisable, and people should never go bare-footed. A short siesta may be taken; great attention should be paid to baths which are a daily necessity, excepting the shower bath which overstimulates tne skin.

M. L. H. Petit read the following interesting observations before the medical congress at Nancy. An osseous panaris appeared to have healed for some time; nothing remained but a slight discharge, and a small eschar showing that the lesion was not entirely cured. A simple pathogenic state supervened in another region than that of the original lesion where a purulent collection manifested itself at the same time as serious phenomena analogous to those of pyohemia. Afterwards suppurated arthritis, albuminuria, etc., ensued. These phenomena generally manifest themselves in debilitated and cachectic patients, and those suffering from serious infectious diseases, and in this instance are interesting as examples of possible indirect sequelæ of panaris. They proved moreover that this complaint, which is considered benign, is preceded or followed by pathogenic microbes, which under the influence of some cause, effect an issue from the blood-vessels, giving birth to purulent collections, and to a serious febrile condition. Panaris in a like case takes the same form as infectious osteomyelitis, which proves that panaris sometimes is true osteomyelitis and appears to be an infectious disease.

Professor Grancher was the first *chief* who treated metrorrhagia with sulphate of quinine. Among patients suffering from fibroma of the uterus with alarming metrorrhagia sulphate of quinine was administered in doses of one and one-half grammes, gradually decreasing the doses until the discharge did not exceed the usual quantity during the menstrual period. In other cases, epistaxis for instance, the action of sulphate of quinine has proved highly beneficial: it acts on vaso-motor system. It seems a fallacy to limit its applications to the treatment of paludal diseases only, inasmuch as favorable results have been obtained by its use in cases of tonsilitis and other complaints, and the patients had not lived in marshy districts. V.

HEALTH IN MICHIGAN DURING SEPTEMBER.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of September (five weeks ending October 2), 1886, as follows, the diseases being arranged in the order of their greatest area of prevalence:

Diarrhœa, rheumatism, neuralgia, intermittent fever, consumption of lungs, dysentery, cholera morbus, tonsilitis, bronchitis, cholera infantum, remittent fever, whooping-cough, influenza, inflammation of bowels, typho-malarial fever, eryspielas, inflammation of kidney, typhoid fever (enteric), pneumonia, diphtheria, scarlet fever, measles, inflammation of brain, puerperal fever, membranous croup, cerebro-spinal meningitis, and small-pox.

For the month of September, 1886, compared with the preceding month, the reports indicate that influenza, tonsilitis, and neuralgia increased, and that cholera morbus decreased in prevalence.

Compared with the preceding month the temperature in the month of September, 1886, was lower, the absolute humidity and the day ozone were less, the relative humidity and the night ozone were more.

Compared with the average for the month of September, in the eight years, 1879 to 1886, remittent fever, intermittent fever, typho-malarial fever, bronchitis, consumption of lungs and diphtheria were less prevalent in September, 1886.

For the month of September, 1886, compared with the average of corresponding months in the eight years, 1879 to 1886, the temperature was about the same, the absolute and the relative humidity, and the day and night ozone were more.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of September, 1886, at sixty-nine places, scarlet fever at thirty places, typhoid fever at fifty places, measles at eleven places, and small-pox at three places.

Reports from all sources show diphtheria reported at twenty-two places more, scarlet fever at two places more, typhoid fever at nine places more, measles at one place less, and small-pox at one place more in September, 1886, than in the preceding month, August, 1886. HENRY B. BAKER, M. D., Secretary.

LANSING, October 7, 1886.

EDITORIAL PERISCOPE.

HYDROPHOBIA.

The following case of authenticated cure of hydrophobia, addressed to Dr. de Pietra Santa, is communicated to the *Lancet* by its Paris correspondent as one of unusual interest. A peasant of Saint Anastasia, near Naples, was bitten on the 10th of May, in the leg and forearm, by a dog whose rabid condition was verified at the necropsy. On July 28 the man was suddenly seized with malaise, excitement and oppressed breathing, accompanied with a sense of constriction in the throat. His wife offered him a glass of water, but the sight of this liquid immediately threw him into a fit of mania, which was followed by convulsions. He was taken to the Hospital for Incurables at Naples, where he was admitted into the ward of Dr. de Capua in a most deplorable condition. The patient complained of feeling cold; the sight of water and the slightest current of air provoked a great degree of excitement, convulsions, and delirium. Basing his faith on the eminently parasiticidal virtue of corrosive sublimate, Dr. de Capua immediately practiced repeated injections of this salt subcutaneously, and combated at the same time the nervous paroxysms (culminating symptoms of rabies) with injections of atropine, which he alternated with those of corrosive sublimate. The injections were renewed the following days. The treatment was crowned with full success. The rabic symptoms amended progressively, and after a few days the patient was able to swallow a glass of water without wincing. Soon after this he asked to eat and drink, and expressed a desire to leave the hospital.

Dr. de Capua observes that the delirium in this case assumed three distinct forms, which followed one after the other. In the first place it was mournful and melancholic; the patient believed himself to be the object of all kinds of persecution. This was succeeded by a delirium bearing a relation to his profession; he imagined that he was occupied at his village with his usual agricultural pursuits. Then came the mystic form, manifesting itself by prayers and religious hymns from morning till night.

Dr. Macario, of Nice, the author of this paper, concludes it with the recommendation that physicians and physiologists should undertake experiments either to confirm or disprove the therapeutic value of corrosive sublimate and of atropine against rabies, adding that if clinical observation and experimental tests on animals confirm the efficacy of the medication proposed by the Neapolitan physician, we shall have at our disposal two powerful arms to combat the most terrible maladies —the anti-rabic inoculations of Pasteur as a prophylactic means, and the subcutaneous injections of corrosive sublimate and atropine of Dr. de Capua as a curative measure. This will be one of the most marvelous conquests of modern medical science.

CONDENSATIONS.

VACCINATION AND SMALL-POX.—In Philadelphia if the health officer is informed of a suspected case of small-pox, he at once sends instructions to the vaccine-physician of the district to visit the suspected house and neighborhood, and vaccinate all who are not well protected by this operation against the disease. The agents of the Board are at once sent to disinfect the premises, and to insist upon their being placed in proper sanitary condition. Later in the day the proper officer investigates the nature of the suspected case. Thus, whether the case be small-pox or not, vaccination and disinfection are secured. These measures receive the credit for there not being one case of the disease in that city during the past year.

TEST FOR BILE IN URINE.—A correspondent of the *National Druggist* calls attention to chloroform as a test for bile in the urine. It is ready, delicate and certain. All that is necessary is to agitate a few drops of it in a test-tube, along with the suspected urine. If bile is present, the chloroform becomes turbid, and acquires a yellowish hue, the depth of which is in proportion to the amount of bile present in the urine. If no bile be present, the test-fluid remains limpid.

OBSTETRICS IN VIENNA.—According to Professor Braun's statistics there have been during the past twenty-nine years at the Vienna General Hospital one hundred and eight thousand eight hundred and eighty-nine confinements, with a mortality of one thousand nine hundred and forty-five, or an average of seventeen to every thousand. The death-rate has been reduced by sanitary improvements and the introduction of the antiseptic system, from twenty-eight in every thousand in the first six years to seven, and in 1883 even to two in every thousand cases.

TREATMENT OF STRICTURE OF URETHRA.—Referring to those cases of stricture low down in the canal, which were curable by dilatation with instruments, without urethrotomy, Dr. Furner, in a paper read before the Brighton and Sussex Medico-Chirurgical Society, advised that no instrument be passed for the first time down the urethra of a patient who came to the surgeon's office, and advocated, in difficult cases, the use of catgut bougies. He found chloroform to be not so sure a preventive against rigors following catheterism as quinine and opium, and strongly recommended rest in bed with ordinary dietetic accessions in the treatment of these cases.

GREAT is the faith of this generation if they can accept some statements made in a paper read at the recent meeting of the French Association for the Advancement of Science at Grenoble, upon the effect of drugs upon hypnotized persons. Messrs. Burot and Bouirie affirmed in their paper that sick persons when put into a state of hypnotism become very impressionable to the action of many substances, especially of medicines, so that these will produce their characteristic effects by only placing them in well-stoppered bottles within a certain distance of the patients. Their statements were confirmed by M. Luys, who said that he had produced nausea and vomiting by simply placing a sealed tube containing one or two grains of powdered ipecacuanha without any notice behind the neck of the hypnotized person. The effects produced, which include convulsions, paralysis, hallucinations, etc., are said not only to vary with the substance, but with the point of contact, so that certain substances will produce different emotional expressions according as they are placed on the right or left side of the patient.

THE TREATMENT OF ECZEMA AND IMPETIGO IN CHILDREN BY THE ADMINISTRATION OF CHRYSAROBIN INTERNALLY.—A number of cases is reported by Stocquart treated in the above manner, without any external remedies. The dose varied from the one-seventieth of a grain in infants to the one-seventh of a grain in children of four or five years, and the duration of treatment from one to three weeks. The cases were distinguished by abundant oozing from the surface affected, and the diminution of weeping and lessening of the redness of the parts, were the first effects of the remedy noticed. He believes that the drug possesses the power of causing contraction of the vessels.

COCAINOMANIA.—The characteristic symptoms exhibited in individuals who have used cocaine to excess denote vaso-motor paralysis. The pulse is accelerated, the sweats profuse, and dyspnœa and syncope ensue. Failure of general nutrition is very notable, the eyes become sunken, and the skin of cadaveric hue. At a more advanced stage psychic troubles supervene, sometimes requiring personal restraint. Most of the persons thus affected had previously been addicted to the abuse of morphia, and cocaine had been used as a substitute. It would therefore be unjust to lay too large a share of the troubles noted at the door of cocaine; still, enough evidence is at hand to prove that it is capable of producing great harm, and should only be used, in the most restricted sense, as a medicine.

IODOFORM POISONING.—In a valuable paper Dr. Cutter (*Boston Medical and Surgical Journal*) gives an account of seventy-seven reported cases of poisoning consequent upon the use of iodoform in the treatment of wounds. The general symptoms were those of poisoning by iodine, namely, persistent taste and smell of the drug, impairing appetite and digestion, headache, sleeplessness and delirium, the latter usually of a melancholy character, in extreme cases passing into absolute apathy with involuntary dejections, rapid pulse and progressive marasmus. Several cases are mentioned in which a most satisfactory progress of the wound was coincident with the passing of the patient into almost a typhoid condition. Dr. Cutter arrived at the conclusions that—(1) Fresh wounds, or unhealthy or tuberculous surfaces, are the only cases fitted for the application of iodoform; (2) Only a thin layer or a small amount of iodoform should be applied; (3) When the granulations appear healthy iodoform should be omitted; (4) At the first symptoms of poisoning, or even coincidently with the first use of iodoform, compounds of alkalies with organic acids, such as potassium acetate, should be given by the mouth at frequent intervals. If severe symptoms supervene, transfusion with a solution of common salt is recommended, and the wound, after being washed free from iodoform, with pure water and a solution of an alkaline carbonate, should be dusted with magnesia.

TRAUMATIC RUPTURE OF THE UTERUS.—This case is reported by Dr. Plenio, (*Centralblatt fur Gynækologie*): A primipara eight months pregnant fell from a loaded hay wagon, striking on the shoulders. She felt a severe pain in the abdomen, and became unconscious in a few minutes. She was taken to a neighboring hospital, where diagnosis was made of traumatic rupture of the uterus, with a dead child lying free in the abdominal cavity. Laparotomy was performed, the child and placenta removed, and the rupture carefully closed with interrupted silk sutures. The laceration was on the anterior wall near the middle, and extended down near the median line to the os internum. A drainage-tube was inserted. The patient made a slow but complete recovery, having symptoms of septicæmia. The after-treatment consisted of opiates, ergotin subcutaneously, and carbolic acid (three per cent.) injections.

NEW METHOD OF TREATING CATARACT PATIENTS.—In the June number of the *American Journal of Ophthalmology*, Dr. Julian J. Chrisolm, of Baltimore, published a paper under the title: "The Rational Method of Treating Cataract Patients, to the Exclusion of Compresses, Bandages and Dark Rooms," where he proposed a method of treatment which is so much at variance with prevailing ideas and methods, that it marks another revolution in operative ophthalmology. He believes the extreme exclusion of light is both undesirable and unnecessary. The eyelid is the natural splint to the eye, and the globe covered with this allows about the same amount of light to pass into the eye as was the case before the cataract was extracted. He further argues that the warm coverings over the eye, and the great seclusion from light so often adopted, are prime factors in the causation of the photophobia and lachrymation witnessed after cataract extraction, and in this way a means of prolonging convalescence. The method Dr. Chrisolm advocates is to seal the eyelids with fine isinglass plaster. In cataract cases it is essential to seal up both eyes. The advantages, particularly in cataract cases, of Dr. Chrisolm's method over the routine method by bandages may be summed up under the following heads: (1) More comfortable to the patient, and less dread of injury by movements; (2) Less discomfort to nurse and friends, or, in hospitals, to other inmates of the ward from less darkening of rooms; (3) Less liability to disturbance, and thus more freedom in movements permitted to patient; (4) More even and exactly fitting; (5) And thus allowing a more correct coaptation of wound, and, it is believed, experience will prove a more ready healing; (6) Inspection of eye is allowed without disturbance, for in this way swelling of lids and discharge are readily seen; (7) Affords a ready means of using eserine or atropine without disturbing the eye, and allows drainage of tears. When the eye is opened, a ready examination in good light is allowed, patient being able to open the eye fully; (8) Less confinement to bed, a quicker convalescence, and shorter stay in hospital.

LEUCOPLAKIA BUCCALIS.—This is a chronic affection of the buccal mucous membrane, characterized by thickening of the epithelium and the formation of white patches, opalescent and slightly elevated, which, after lasting a considerable time, and, as a rule, cracking and becoming painful, are rather liable to degenerate into epithelioma. It is an idiopathic disease distinct from psoriasis, the smoker's patch, and syphilis. It is met with in men and during the latter half of life, but has also been seen in women. It is so frequent in excessive smokers, that one might look on the abuse of tobacco as a predisposing cause, did not cases occur where the affected person had never smoked. Local applications have hitherto either been useless, or have hastened the transformation into epithelioma. Total ablation of the diseased parts followed by cauterization of the wound by the actual cautery, and the gradual destruction, at several sittings, of the morbid product with the galvano-cautery have been found successful.

DIETETIC FALLACIES—The following popular notions and beliefs are classed in *Technics* as fallacies: That there is any nutriment in beef-tea made from extracts; there is none whatever. That gelatine is nutritious: it will not keep a cat alive; beef-tea and gelatine, however, possess a certain reparative power, we know not what. That an egg is equal to a pound of meat, and that every sick person can eat them: many, especially those of nervous or bilious temperament, cannot eat them; and to such, eggs are injurious. That because milk is an important article of food, it must be forced upon a patient: food that a person cannot endure, will not cure. That arrow-root is nutritious: it is simply starch and water, useful as a restorative, quickly prepared. That cheese is injurious in all cases: it is, as a rule, contra-indicated, being usually indigestible; but it is concentrated nutriment, and a waste-repairer, and often craved. That the cravings of a patient are whims, and should be denied: the stomach often needs, craves for, and digests articles not laid down in any dietary; such are, for example, fruit, pickles, jams, cake, ham, or bacon with fat, cheese, butter and milk. That an inflexible diet may be marked out, which shall apply to every case: choice of a given list of articles allowable in a given case must be decided by the opinion of the stomach; the stomach is right and the theory wrong, and the judgment admits of no appeal. A diet which would keep a healthy man healthy might kill a sick man; and a diet sufficient to sustain a sick man would not keep a well man alive. Increased quantity of food, especially of liquids, does not mean increased nutriment; rather, decrease, since the digestion is overtaxed and weakened. Strive to give the food in as concentrated a form as possible. Consult the patient's stomach in preference to his cravings; and, if the stomach rejects a certain article, do not force it.

CURE OF MENTAL DISEASES BY HYPNOTISM.—In a communication read at the congress at Nancy, by M. Voisin, of Paris, on the possibility of curing mental diseases by the aid of hypnotic sleep, he cited two cases which lately came under his notice. With the first patient sleep could not be obtained by the ordinary method of looking fixedly at the experimenter. The patient's eyes were then kept open by means of two palpebral separators, and the rays of the magnetic lamp being directed towards them for ten minutes, produced sleep. In two days the patient, who at first manifested great excitability, was completely cured. The second patient, a lypemaniac, who had refused food for a fortnight, and had made several attempts to commit suicide, was put to sleep for ten minutes, the first time by hypnotism. On awakening, she acquiesced in suggestions made during sleep, and consented to take milk. The same treatment was repeated every other day, and at the end of a month she was quite cured, and able to return to work.

TYMPANITIS IN HYSTERICAL WOMEN.—Professor Talma, writing on tympanitis in hysterical women, relates some interesting facts concerning three of his patients. He believes the cause of this condition to be spasmodic contraction of the diaphragm. The first case mentioned is that of a servant, aged twenty-three, who presented, with the exception of paralysis, all the symptoms common to hysterical girls. She sought advice for an eruption on the breast, and whilst under Professor Talma's treatment mentioned that she had suffered some months previously from enlargement of the abdomen. The abdomen was even then greatly enlarged, and the girl suffered terribly from hiccough, which increased in violence when any of the students approached her. During sleep the size of the abdomen decreased considerably, and when the patient was put under chloroform it resumed its normal proportions. A tube was passed into the stomach, but no abnormal amount of gas was discovered. Nor was any undue quantity found in the intestines. As the effect of the chloroform passed off, the abdomen again increased in size, and Professor Talma noticed that the patient took four or five inspirations without any corresponding expirations. During respiration the abdomen was immovable, and the breathing entirely thoracic; the lower border of the lungs was depressed to the tenth rib. Professor Talma was convinced that the enlargement of the abdomen was the result of spasmodic contraction of the diaphragm. The two other cases were those respectively of a servant, aged thirty-five, and a girl, aged fifteen, who had not menstruated. The cases were somewhat similar, and Professor Talma came to the same conclusion as in the first case as to the cause of the tympanitis.

COLD BATHING.—The benefit of a cold bath is in the reaction, and it is only useful or safe when it produces a rapid return of the blood to the surface. If it is not immediately followed by a glow and feeling of warmth the bath is injurious; and these effects are not likely to be produced unless the circulation be vigorous and both the heart and blood-vessels healthy. "Great mistakes are made," says the *Lancet*, "and serious risks are often incurred by the unintelligent use of the cold bath by the weakly or unsound. Moreover, it is necessary to bear in mind that there is seldom much energy to spare after middle age, and it is seldom expedient for persons much over forty to risk cold bathing. We would go so far as to say that no one above that age should use the tub quite cold unless under medical advice. It is possible to be apparently robust, and for all the average purposes of life, healthy, and yet to have such disabilities arising out of organic disease or weakness as to render the recourse to heroic measures, even in the matter of cold bathing, perilous."

FAILURE OF LUNG TEST IN INFANTICIDE.—Ebertz reports a case of infanticide, where the usual lung-test of live-birth failed, although, from the confession of the mother, it was certain that the child had lived for some time after birth. The mother admitted having killed the child by thrusting two pieces of rag into its mouth, and, fearing this was not sufficient, by afterwards driving the points of scissors into its neck and cutting the throat. The body was thrown, wraped in a cloth, into water, where it was found about four weeks later. The mother stated that the child neither moved nor cried after birth, although she knew it was alive from feeling the pulse in the arms. Ebertz believes the woman's account to be correct, although the usual evidence of live-birth at the necropsy was absent; no fragment of the lungs floated in the water. The rags were found stuffed into the throat, and the injury to the neck was extensive, embracing the trachea, but leaving the larger blood-vessels intact. The umbilical cord had been torn through, and was not tied. Ebertz is of the opinion that the child was born in the condition so-called apparent death—frequently observed by accoucheurs—and thus never breathed, although alive; or that it had breathed very lightly, but the lung had, at death, returned to an atelectatic condition. The latter view was suggested by a rounding of the edges of the lungs, and it is rendered possible by the comparatively recent experiments of Ungar, which go to prove that a new-born child may breathe for some time after birth, and yet its lungs may become, after death, completely atelectatic. The woman was convicted, and sentenced to one and a half year's imprisonment.

HÆMORRHAGE FOLLOWING TONSILLOTOMY.—An instructive case illustrating a possible, though fortunately a rare, accident, is reported by Dr. Downie in the *Edinburgh Medical Journal.* The patient had been troubled with his throat since a boy, and had his tonsils "removed" several times, the operations failing to relieve him, and was again operated upon by Dr. Downie, who removed a portion of each tonsil. This was followed by the use of a tanno-gallic acid solution. In four hours, while at stool, severe hæmorrhage set in, which did not yield to any of the ordinary measures used in such cases. The bleeding persisted until the patient's condition became critical, and assistance was called with the view of ligating the carotid. But before this was done the actual cautery was applied thoroughly to the raw surface of the tonsils. The hæmorrhage was instantly arrested by this operation, and did not return. The internal administration of perchloride of iron with small pieces of ice held in the mouth, were continued for some hours after the use of the cautery.

THE "SLEEPING DISEASE."—A singular and invariably fatal malady called lethargus, peculiar to the negroes of certain districts on the western coast of Africa, is described in the *Massachusetts Medical Journal.* The patient, usually a male adult, is seized, without any premonitory symptoms, with a sensation of drowsiness, which continues rapidly to increase, in spite of all efforts to throw it off, until he sinks into a profound and seemingly natural sleep. This continues for about twenty-one days, when death takes place. Throughout the course of the disease the patient preserves a quiet and peaceful countenance, may be easily aroused for a short time, will take nourishment, and generally answer a few questions in a perfectly rational manner.

The pulse, respiration and temperature remain normal throughout, the pupil is neither dilated nor contracted to any noticeable extent, and the urine and fæces are voided with comparative regularity. With the exception of the abnormal tendency to sleep, nothing exists to denote disease. Many careful post-mortem examinations have been made by competent men, but nothing of an abnormal character has been found, while every remedy that could possibly be of any avail has been used without any apparent beneficial effect.

NEW PUBLICATIONS.

A MANUAL OF MICROSCOPICAL TECHNOLOGY FOR USE IN THE INVESTIGATIONS OF MEDICINE AND PATHOLOGICAL ANATOMY. By Dr. Carl Friedlænder, Lecturer on Pathological Anatomy in the University of Berlin. Translated, with the express permission of the Author, from the second enlarged and corrected edition, by Stephen Lates Howell, M. A., M. D., Buffalo, New York. 12mo: two hundred and fifty pages. New York and London: G. P. Putnam's Sons. The Knickerbocker Press, 1885.

This work gives a description of the methods employed in microscopical investigations of a diagnostic and pathological nature. The rapid development of microscopy, and the great progress made during the last decade, and particularly in the last few years, in the improvement of methods for work, renders it necessary for those who wish to understand and profit by the advance, to learn the later methods. The author wrote this little work for those who desire, personally, to make microscropical examinations for professional purposes. It is an exposition of the recent improvements in the field of pathological investigation. The marked advancement made in the science is due to the great improvements in technology, and pertains chiefly to new and more carefully prepared reagents. To the quality and proper use of reagents depend the success of the observation. The author fully recognizes this and gives one-half of his work to the reagents and other preparatory methods.

In the consideration of the significance of the tubercle-bacilli, the author emphasizes that pulmonary consumption is now to be, indeed, regarded as a tuberculosis of the lungs, which, in the majority of cases, is localized. "If, now, we discover in the sputum that parasite which we know to produce tuberculosis, we are forced to conclude that a tubercular process is going on somewhere in the respiratory apparatus, including the mucous membrane of the mouth and pharynx."

This work is a valuable addition to microscopical literature, and Dr. Howell has the gratitude of the student and practitioner for the translation and the careful elaboration of certain chapters.

SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS.

Edited by William Pepper, M. D., LL. D. Volume V: Diseases of the Nervous System. Philadelphia: Lea Brothers & Company.

The issue of the fifth volume of the "System and Practice of Medicine, by American Authors" terminates the development and execution of a grand conception. To evolve a theme of such greatness and to delineate a plan for work, which needed no change or modification to its successful fulfillment, exhibits a comprehension that must needs have called forth the editor's "strenuous endeavors." His valedictory tells us that the original prospectus of the work was issued in 1881. The first volume was published in January, 1885; the second, in May, 1885; the third, in September, 1885; the fourth, in February, 1886; and the fifth, in June, 1886.

The number of articles is one hundred and eighty-five, written by ninety-nine authors, covering, with indexes, about five thousand, six hundred pages. This work, for the first time, presents the entire subject of practical medicine, treated in a manner truly representative of the American School, and the editor can justly feel "that it is a subject of congratulation."

This volume is devoted to the Diseases of the Nervous System. The opening chapers: "General Semeiology of Diseases of the Nervous System; Data of Diagnoses." "The Localizations of Lesions of the Nervous System" are from the pen of Dr. Sequin. Here the fundamental information for intelligent observation and diagnoses of diseases of the nervous system is clearly stated. The subject of localization of lesions is treated under five divisions: In the peripheral nervous system (including the cauda equina); in the spinal cord; in the medulla oblongata; in the encephalon; and, cranio-cerebral topography. Dr. Sequin has here rendered his text unmistakably clear by numerous diagrams and plates. The limitation of the space to be given to such an exhaustless subject as "Mental Diseases," must of necessity greatly abridge a full discussion of the subject. Dr. Folsom, however, by his admirable classification, style and phraseology, makes a most valuable contribution.

Dr. Mills wrote the article on "Hysteria." It is full and well written. He does not regard hysteria as having a *morbid anatomy*, but it, like other diseases, has a pathology, which must be "considered with reference to the explanation of the exact condition of the cerebro-spinal axis during the existence of certain special grave phenomena of hysteria, such as hemianæsthesia, hemiplegia, paraplegia and contractures." Two hypotheses are used to explain the condition: the vasomotor and the dynamic, each having its eminent advocates. From a study of these views Dr. Mills concludes that:

(1) The anatomical changes in hysteria are temporary.

(2) These changes may be at any level of the cerebro-spinal axis, but are most commonly and most extensively cerebral.

(3) They are both dynamic and vascular; the dynamic are of some undemonstrable molecular character; the vascular are either spastic or paretic, most frequently the former.

(4) The psychical element enters in that, either on the one hand, violent mental stimuli which originate in the cerebral hemisphere are transmitted to vaso-motor conductors, or, on the other hand, psychical passivity or torpor permits the undue activity of the lower nervous levels.

In the treatment, Dr. Mills strongly argues that hysteria cannot be cured by drugs alone, and that the prophylactic and hygienic treatment is of paramount importance, giving to education—in its broad sense—the most important place.

Dr. Mills also contributes the articles on "Hystero-Epilepsy," "Catalepsy," "Ecstasy," "Progressive Unilateral Facial Atrophy," and in conjunction with Dr. Lloyd, those on "Tumors of the Brain and its Envelopes," "Tumors of the Spinal Cord and its Envelopes."

In this volume, pre-eminently, one notices the great developments and advances that have been made in the past few years, and the earnest and successful labor that is being prosecuted in the study of the nervous system. The way is opened, and while much has been brought to light, it constitutes but a fraction of what remains sealed and undiscovered. But from the pens of those above mentioned, and from those of Wood, Sinkler, Hamilton, Wilson, Minot, Edes, Putman, and others of equal eminence, we have delivered what is recent and valuable. This book, upon the most important class of diseases in the broad field of medicine, is a fitting conclusion to the "System of Practical Medicine by American Authors."

ESSENTIALS OF VACCINATION: A COMPILATION OF FACTS RELATING TO VACCINE INOCULATION AND ITS INFLUENCE IN THE PREVENTION OF SMALL-POX. By **W. A. Hardaway, M. D.,** Professor of Diseases of the Skin in the Post-Graduate Faculty of the Missouri Medical College, Saint Louis; Member of the American Dermatological Association; formerly one of the Vaccine Physicians to the City of Saint Louis. 12mo: one hundred and forty-six pages. Cloth. Saint Louis: J. H. Chambers & Company, 1886.

In this small volume, Dr. Hardaway gives a great amount of valuable information on the subject of vaccination. His experience and study of vaccination enables him to select out the more essential facts relating to this subject. For this reason the physician will find it a highly desirable work.

After giving an interestingly written history of vaccination and some general considerations on variola in animals, he states the nature of vaccinia, showing the relationship of cow-pox and horse-pox to human variola. The normal symptoms and course of vaccinia in the human subject is clearly traced and the abnormal modifications and complications are carefully considered. Revaccination, its importance and the principles that should be observed, are briefly but pointedly given. The relative merits of vaccine virus are compared, and the methods of obtaining and storing virus are important subjects upon which the author has clear and decided views. The operation, while simple as it may seem, is shown to be of the utmost importance, and when well performed requires an amount of technical skill, theoretical and practical knowledge of the subject that is rarely appreciated either in or out of the profession. When it is considered that comprehensive treatises, and the great mass of the literature on the subject of vaccination is not readily accessible to the general practitioner, this little work supplies a want that must be keenly felt by the great majority of physicians.

DRAINAGE FOR HEATH; OR, EASY LESSONS IN SANITARY SCIENCE. By Joseph Wilson, M. D. Second edition, with important additions. 8mo; seventy-four pages. Cloth, $1.00. Philadelphia: P. Blakiston, Son & Company, 1886.

Five subjects are considered in this small work, the importance of which are not to be estimated by the limited space devoted to them. They are subjects upon which libraries have been written, but in the great majority of cases the works have been written above the heads of the average reader. This fact being appreciated by Dr. Wilson, he has produced a little volume which is "simple in style and language." The lessons are given in a way that they can be easily comprehended, and will be found enjoyable and profitable reading. We most cordially commend it to the physician, believing that the work will be useful to him; giving him valuable information upon land drainage; drainage of the farm house and of the village; drainage of cities; instruction in plumbing; and reasons for a board of health.

A MANUAL OF DIETETICS. By J. Milner Fothergill, M. D., Edinburg, Physician to the City of London Hospital for Diseases of the Chest (Victoria Park); Honorable M. D., Rush Medical College, Chicago, Illinois; Foreign Associate Fellow of the College of Physicians, Philadelphia. 8mo: two hundred and fifty-five pages. Cloth. New York: William Wood & Company, 1886.

"The day of dietetics has arrived," is the opening sentence and paragraph of Dr. Fothergill in his preface to his manual. Like all of his writings, this work is sprightly in its style, and instructive in its common-sense and scientific information. The work is full of facts taken from his wide experience; and principles logically deduced from these observation. It is, however, not written from the stand-point of individual empiricism, but upon a scientific and physiological basis. "Before the days of chemistry," says the author, "food was in its pre-scientific stage." Then it was the study to please the palate, and views as to food varied in the wildest manner. "It is only at the present day, and from the teachings of Liebig, that food has been regarded from a scientific point of view, both as regards the hale and the sick."

From this scientific stand-point Dr. Fothergill considers the forms of food, with their digestion; their preparation; natural and artificial foods; and their practical application in all periods of life, and for all forms of disease. The discussion of the subject is forcible, giving comprehensive and thoroughly practical views upon a subject that is too little utilized by the practitioner.

BOOKS AND PAMPHLETS RECEIVED.

REPORT OF PROCEEDINGS OF THE MICHIGAN STATE BOARD OF HEALTH. Regular Meeting, July 13, 1886. Henry B. Baker, Secretary.

SURGICAL TREATMENT OF EMPYEMA. By F. J. Groner, B. S., M D., Surgeon to Mercy Hospital, Big Rapids. Reprinted from the "Transactions of the Michigan State Medical Society," for 1886.

OBSERVATIONS ON THE USE OF SOME OF THE NEWER REMEDIES OF DISEASES OF THE UPPER AIR PASSAGES. By E. L. Shurley, M. D., Detroit, Michigan. Reprinted from the *New York Medical Journal*, for September 11, 1886.

SOME RECENT EXPERIENCES IN CLINICAL SURGERY. Illustrated by Notes of Cases, Pathological Specimens and Patients. By Donald Maclean, M. D. Reprinted from the "Transactions of the Michigan State Medical Society," for 1886.

SURGICAL NOTES FROM THE CASE BOOK OF A GENERAL PRACTITIONER. By William C. Wile, M. D., of Newtown, Connecticut, Fourth Vice-President of the American Medical Association. Reprinted from the *New England Medical Monthly*, July, 1886.

GALVANO-CAUTERY IN DISEASES OF THE PROSTATE, BLADDER AND URETHRA. By Robert Newman, M. D., of New York. Read in Surgical Section, at the Thirty-Seventh Annual Meeting of the American Medical Association Reprinted from the *Journal of the American Medical Association*, August 18. 1886. Chicago: 1886.

TWO RARE CASES OF ABDOMINAL SURGERY. By J. A. Stucky, M. D., Lexington, Kentucky, Surgeon to Saint Joseph's Hospital; Member Kentucky State Society; Vice-President American Rhinological Association. Reprinted from the *Medical Record*, of November 21, 1885. New York: Trow's Printing Company, 1885.

SURGICAL LEISIONS OF THE BRAIN AND ITS ENVELOPES. A Lecture delivered at the College of Physicians and Surgeons, Chicago, Illinois. By Nicholas Seen, M. D., of Milwaukee, Professor of Principles and Practice of Surgery and of Clinical Surgery in the College. Reprinted from the *Medical News*, August 20, 1886.

REPORT OF THE DELEGATES FROM THE PHILADELPHIA COUNTY MEDICAL SOCIETY TO THE THIRTY-SEVENTH ANNUAL MEETING OF AMERICAN MEDICAL ASSOCIATION. With the Resolutions of the Philadelphia County Medical Society in relation thereto. Published by order of the Society. Philadelphia: Wm. F. Fell & Company, 1886.

SPINAL IRRITATION (POSTERIOR SPINAL ANÆMIA). By William A. Hammond, M. D., Surgeon General of the United States Army (Retired List); Professor of Diseases of the Mind and Nervous System in the New York Post-Graduate Medical School and Hospital, etc. The Physicians' Leisure Library. Detroit: George S. Davis & Company.

RHEUMATISM: ITS NATURE, ITS PATHOLOGY, AND ITS SUCCESSFUL TREATMENT. By T. J. Maclagan, M. D. Octavo: two hundred and eighty-five pages, illustrated. Supplied only to subscribers for "Wood's Library of Standard Medical Authors," for 1886 (consisting of twelve volumes. Price, $15.00), of which this is Volume IX. New York: William Wood & Company.

PROCEEDINGS AND ADDRESSES AT THE SANITARY CONVENTION, HELD AT KALAMAZOO, MICHIGAN, JUNE 1 AND 2, 1886, UNDER THE DIRECTION OF A COMMITTEE OF THE STATE BOARD OF HEALTH AND A COMMITTEE OF CITIZENS OF KALAMAZOO. Supplement of the Annual Report of the Michigan State Board of Health for the year 1886. By authority. Lansing: Thorp & Godfrey, 1886.

THE MODERN TREATMEET OF ECZEMA. By Henry G. Piffard, A. M., M. D., Clinical Professor of Dermatology, University of the City of New York; Surgeon to the Saint Elizabeth's Hospital; Consulting Surgeon to Charity Hospital; Consulting Surgeon to the Bureau of Out-door Relief, Bellevue Hospital; Consulting Dermatologist to the New York Infant Asylum, etc., etc. The Physicians' Leisure Library. Detroit: George S. Davis, 1886.

PROCEEDINGS AND ADDRESSES OF THE SANITARY CONVENTION, HELD AT HOWELL, MICHIGAN, MARCH 3 AND 4, 1886, UNDER THE DIRECTION OF A COMMITTEE OF THE STATE BOARD OF HEATH AND A COMMITTEE OF CITIZENS OF HOWELL. Supplement to the Annual Report of the Michigan State Board of Health for the year 1886. By authority. Lansing: Thorp & Godfrey, State Printers and Binders, 1886.

OPERATIONS ON THE DRUM HEAD FOR IMPAIRED HEARING With Fourteen Cases. By Seth S. Bishop, M. D., of Chicago, Attending Surgeon to the Illinois Charitable Eye and Ear Infirmary, and to the South-Side Free Dispensary. Read in Section in Ophthalmology, Otology and Laryngology, at the Thirty-Seventh Annual Meeting of the American Medical Association. Reprinted from *Journal of the American Medical Association*, August 28, 1886.

PROCEEDINGS OF THE THIRTHIETH ANNUAL CONVENTION OF THE SUPERINTENDENTS OF THE POOR AND UNION ASSOCIATION, Comprising the Present and Past Superintendents of the Poor, Commissioners of Charity, Officers of the State Public School, Officers of Benevolent Associations, and Penal and Reformatory Institutions, Keepers of Poor Houses and County Agents of the State of Michigan. Held in Ionia, February 16, 17 and 18, 1886. Lansing: Thorp & Godfrey, 1886.

THE RELATION OF THE STATE AND THE MEDICAL PROFESSION. An address delivered June 30, 1886, before the Alumni Association of the Department of Medicine and Surgery of the University of Michigan. By Charles J. Lundy, A. M., M. D., President of the Medical Alumni Association, University of Michigan; President of the Detroit Medical and Library Association; Professor of Diseases of the Eye, Ear and Throat in the Detroit College of Medicine, etc. Ann Arbor: Frank E. Beeman, 1886.

MEDICAL DIGEST.

SOME RECENT CONSIDERATIONS ON THE PREFŒTAL DILATATION OF THE VULVA, ACCOMPANIED BY A STUDY ON THE FORMATION AND RUPTURE OF THE SAC OF THE LIQUOR AMNII.

Dr. Leon Dumas, in *Annales de Gynæcologie* for September, October, and November, 1885, referring to an article published two years ago by himself under the title of "Prefœtal Dilatation of the Vulva," acknowledges that he has since that time been on the watch for an opportunity of again bringing the subject before the profession; this opportunity, he thinks, he has found in the publication by Dr. Byford, of Chicago, of a paper entitled "Functions of the Membranes in Labor." The author allows that Dr. Byford comes to the same theoretical conclusions as those from which he himself starts, but differs entirely as regards the application of those views. Before going into a discussion of the merits of his own views, he puts Dr. Byford's opinions briefly before his readers.

Résumé of Dr. Byford's ideas.—Briefly considered, these ideas are: (1) that just as the bag of membranes dilates the cervix uteri, so they should be allowed to distend the vulva; and (2) that every effort should be made to preserve the membranes intact until the head passes the perineum; with this view the woman is directed to keep quiet, resting on her back; she is not to strain, and violence of pain is to be kept in check by opiates or chloroform. The advantages claimed by Dr. Byford for his method, are safety for the perineum, absence of tendency to prolapse on the part of the umbilical cord, and possibility of correcting malposition of the head, even when the latter is engaged in the pelvic cavity; should the amniotic sac rupture prematurely, Dr. Byford resorts to digital pressure or inflated air-bags to effect the dilatation of the vulva.

Examination of the method proposed by Dr. Byford.—Granted that the principle recognized by the American accoucheur is correct, the question of real importance becomes this: "Is it possible, in the majority of cases, to reckon on the bag of waters for the dilatation of the lower orifice of the vagina?" The author of this paper answers unhesitatingly in the negative, and claims that his reasons for so doing are based on a strict observance of nature's usual method; certainly in most cases the membranes rupture as soon as the cervix is completely dilated, and not before. Dr. Ribemont has shown experimentally that a great difference frequently exists in the toughness of the membranes, and that, *cœteris paribus*, the time of spontaneous rupture largely depends on this. Dr. Byford considers that allowing women to walk about during the first stages of labor is distinctly injurious, and favors early rupture of the membranes. Dr. Dumas entirely disagrees on this point, and considers that in many cases of uterine obliquity the very reverse is the truth. It may be then taken for granted that, as a rule, under normal conditions the waters break away under the influence of uterine contractions soon after the dilatation of the cervix is complete. Dr. Byford quotes those cases in which the fœtus is born with a caul in support of his views; he mantains, too, that the membranes becoming detached from the lower segment of the uterus are driven through the dilated cervix with the head, until they come into contact with the vaginal walls, as yet undilated; from these latter they receive support till the vulva is reached. The author rebuts the above assertion by drawing attention to the lax state of the vagina in the latter part of pregnancy, and the impossibility of any support from the vagina when the uterus is exerting a force of ten to eleven kilogrammes above. Dr. Dumas goes still further, and seeks to demonstrate the utter impracticability of preserving the bag of waters intact until the vulva is reached under ordinary conditions, whatever precautions may be taken.

The behavior of the membranes during the obliteration and dilatation of the cervix.—The question is put by Dr. Byford, "What is there to hinder the membranes from arriving at the vulva?" To this the author replies, "the sudden distention to which they must yield when the neck of the womb is completely or almost completely dilated." According to Ribemont, two elements are possessed by the membranes: (1) that of resistance, and (2) that of extensibility; and, according to Dr. Dumas, the last named is the most important. Remembering how the limit of extensibility depends on the force not being applied too suddenly, and pointing out that at the moment of complete dilatation of the cervix, and at that moment only, the membranes are subjected to a sudden distention which did not exist before, the conclusion becomes inevitable that rupture of the membranes at that moment is inevitable, and under normal conditions will happen then and then only. After a brief review of Cazeaux's opinion, that the bulging of the bag of membranes is not due to an elongation of the membranous sac, but rather to change of shape on the part of the ovum, attention is called to the fact that in the obliteration of the cervical canal and the dilatation of the os, considerable change is effected in the relations of the lowest part of the membranes. This lowest part of the ovum, which during pregnancy adhered to the lower uterine segment, comes, at the onset of labor, into relation with the cervical wall. Two hypotheses only can explain this: (1) either the membranes have undergone an enormous distention at the level of the cervix, and have furnished a finger-like prolongation which has advanced as far as the os externum; or (2) the membranes have become separated to a certain height from the lower segment of the body of the uterus, and so have come in contact with the wall of the obliterated cervix. Dr. Dumas pins his faith to the last of these two views, though he admits that the majority of authors differ from him. Two clinical facts may be quoted in support of the theory that separation of the membranes takes place; in inducing premature labor near the end of pregnancy by means of the passage of a flexible catheter, it is found that the instrument passes to a certain distance easily, but then meets with resistance, owing probably to its having reached the point where separation of the membranes from the uterine wall still remains to be accomplished; in the second place, at the onset of labor, or a few days previously, mucus streaked with blood is often discharged per vaginam, and it may reasonably be surmised that these blood streaks result from the rupture of small vessels during the separation of the membranes. An argument again might fairly be drawn from cases of placenta prævia; if the placenta in these instances so readily separates from the uterine wall, is it more difficult to believe that the lower part of the decidua may do the same.

By the aid of diagrams the relation of the membranes to the lower uterine segment and cervical canal during obliteration and dilatation of the cervix is shown, and then the author propounds two alternatives—either there is separation and a gliding movement on the part of the membranes, or else there is an enormous distention of the sac sufficient to allow of its reaching the os externum. Now by experiment it is possible to show that the membranes cannot support a pressure capable of bringing them by distention to the external os without rupturing; proof of this is given by the investigations of Matthews Duncan. The latter author has shown that the elasticity of the membranes seldom passes the limit of two and a half centimetres (one inch), and as an elongation of five centimetres (two inches) would be required if the distention theory was correct, it is evident that delivery could rarely take place without premature rupture of the membranes. It may be well here to notice two pieces of clinical evidence: If the lower extremity of the membranes really came lower down in consequence of their distention, their progressive descent in the pelvis ought to be capable of being recognized, and again the measurement of the ovum from above downward ought to increase, and yet neither of these points is capable of demonstration. It is true that some authors claim a lengthing of the ovum to take place during labor, under the influence of what Schatz has termed the "force of restitution of the form of the uterus," but this at most amounts to only six millimetres (one-quarter inch), and can only take place when the pains are powerful, and quite different to those required for the obliteration of the cervix. Again, as regards the descent of the ovum into the pelvis, it is clear that when this exists it is due to the fact that the whole uterus has sunk in the pelvic cavity, and not to any individual lowering of the ovum; the bag of waters, even during a pain, is seldom more than a few millimetres in advance of the head, and in the intervals lies unstretched and slightly wrinkled. If, then, the membranes cannot even stretch sufficiently to reach the os externum, they certainly will not reach the vulva and distend that, as Dr. Byford would demonstrate. By the aid of further diagrams, the author shows how, during the process of obliteration of the cervix and dilatation of the "os," the lower segment of the membranes comes in contact with correspondingly lower segments of the utero-cervical canal, until at length dilatation is complete, and the projecting part of the sac of the membranes bulges down free into the vagina. The question might fairly be asked at this point, why, if the extensibility of the membranes can be altogether disregarded, the process of separation does not go on still upward, and affect all the rest of the membranes, placenta included. This is just the point which will be brought out on examining the action of the muscular wall of the uterus; though the length of the cervix has been added to that of the body of the uterus, still the total length remains the same; or, in other words, the body of the womb has shortened up. Thus, during dilatation, as well as during obliteration of the cervix, the latter is drawn upon and elongated upward, while at the same time the body of the uterus becomes thicker and shorter. Two important clinical facts prove the above statements: in the first case, when the anterior lip has been caught between the advancing head and the symphysis, it is found on freeing the imprisoned lip that the whole cervix is rapidly drawn above the head, though the latter does not descend an iota; and, in the second place, where the head lies low in the pelvic cavity, resting on the perineum before dilatation is effected, the latter process is completed, and the cervix is drawn above the head without any further real descent of the vertex. From the consideration of the above description, it may be seen that it is not the ovum which separates itself from the uterine wall and glides toward the os externum, but the uterine wall which separates from the ovum in the course of retraction, and glides upward along the membranes dragging the cervix from below upward. The point where the process of separation ceases can scarcely be fixed with accuracy, but probably the pressure of the circumference of the fœtal head on the external mouth of the uterus subjects the membranes to an amount of distention which prevents further separation. The author does not deny that the membranes possess the power of extensibility to a small degree, but does not attach much importance to this feature in the progress of labor; he calls attention to their permeability by liquids, and gives this as a safeguard against premature rupture.

Mechanism of the preservation and of the rupture of the bag of waters in normal cases.—From what has been already put forward, it will be evident that as soon as dilatation is complete, and the membranes have reached their limit of extensibility, namely, two and a half centimetres (one inch), rupture under normal conditions must follow. Attention is called to one additional point: owing to the close adaptation of the child's head to the lower uterine segment, the pressure on the amniotic fluid lying between the vertex and the presenting membranes is not equal to that exercised on the bulk of water above, not, at all events, until dilatation is complete; the pressure supported is the total uterine force, minus the resistance of the cervical tissues. By the above consideration it is evident that the chance of premature rupture is greatly lessened.

Application of the foregoing theory.—If the line of thought already pointed out is followed, there is no difficulty in seeing how, after the expulsion of the fœtus, the membranes and placenta will be separated in the same way by the contraction and retraction of the upper part of the uterus. Possibly in the light of this theory one of the determining causes of labor may be found, the separation of the membranes being produced in the first place by the uterus absorbing the cervix in order to make more room for the enlarging ovum, and then the contact of these membranes with the cervical surface setting up reflex stimulation. Retention or non-separation of a portion of the membranes in cases of hasty delivery would also be accounted for by the theory propounded. One, however, of the most interesting applications is the bearing the theory has on the explanation of cases of "placenta prævia." Without going over the whole ground, it will be seen at a glance that it accounts for all the phenomena observed, and satisfactorily bridges over the gaps so patent in the theories of other observers. There are a few facts which can, indeed, be scarcely explained apart from the theory now under discussion; these may be briefly summarized:

(1) Analogy between the mode of evacuation of the uterus and certain other hollow organs.

(2) The apparent and real mechanism of the mechanical dilatation of the cervix.

(3) Cause of the form "en boudin," which the bag of waters presents at times.

(4) Premature rupture of the membranes.

(5) Rupture at a point high up in the uterine cavity.

(6) Rupture retarded.

The author quotes the peristaltic action of the intestine, the mode of action of the pharynx in deglutition, and the method in which the segments of the mitral valve come together leaving the ventricle full of blood, as illustrations of analogy. Regarding the second point, attention is drawn to the fact that the presenting bag of membranes is really a "passive" dilating wedge, the cervix using it as a supporting point over which to withdraw, and not being actually pressed open by the active incursion of the former. The presentation "en boudin" is doubtless due sometimes to the unusual elacticity of the membranes; but, as a general rule, it is caused by the fœtal part remaining more or less unduly elevated above the bag of waters. As a result of the membranes separating to an undue height, the influence of the presenting fœtal part on the form of the sac of waters is lost, and the membranes are able to assume the glove-finger shape. In consequence of this, the tention is low in the presenting sac, and dilatation progresses but slowly. Premature rupture can usually be explained, disregarding cases of extreme thinness or delicacy of the membranes, by the existence of conditions which at an early stage allow of the whole intrauterine pressure being brought to bear on the presenting bag of membranes. Such are cases of contracted pelvis, face, shoulder, and breech presentations. Rupture at an elevated point in the uterus is probably to be accounted for by the membranes having a firmer attachment at one part than another, since, owing to this, separation takes place in a less regular method, and unequal dragging causes rupture. Other causes, such as blows, shocks, or irregularly violent pains, are possible. Reasons for delayed rupture can easily be formulated, if we study the mechanism in the cases already considered.

Refutation of Dr. Byford's views.—Superiority and new advantages of prefœtal dilatation of the vulva.—The advantages which Dr. Byford claims for his method are, that it enables a faulty position to be redressed when the head is in the pelvis; and, secondly, that it affords a safeguard against prolapse of the cord. It is difficult to see how either of these advantages is secured by retaining the bag of membranes intact till the vulva is reached. As a matter of fact, Dr. Byford's method may become a source of real injury to the mother, first, by the tedious labor it entails, and, secondly, by encouraging the separation of the membranes to proceed so far up the uterus that the placenta may become detached and the fœtus thereby asphyxiated. The elastic, dilating bag with which Dr. Byford proposes to dilate the vulvo-vaginal orifice in case of early rupture of the membrane is also useless, for if tightly distended it causes exquisite pain; and if only partially filled, it is driven out by the pressure from above. Equally faulty is his idea of passing two or three fingers into the vagina and pushing back the perineum during the pains. In concluding, two special points in his own method of treatment are dwelt upon by the author. The vulvo-vaginal orifice having been rendered yielding and dilated by digital manipulations, a moment is chosen when a strong pain is over, and then the patient being directed to avoid straining, the right hand being laid flat on the posterior commissure of the vulva and the anterior part of the perineum, these latter parts are pushed backward over the fœtal head, which at the same time is supported and kept in its present position. The chin once reached by the above method is disengaged by pressing on it with the finger-tips across the perineum and from behind forward. Regarding the most suitable time for executing this movement, advantage should be taken of the moment when the fingers, which execute the prefœtal dilatation, feel the frontal bosses at the fourchette or the line of the hair on the child's forehead. In all cases the manœuvre is to be carried out in the interval between two pains. The second point that is dwelt upon is the necessity that exists for careful observation lest the head should be incompletely flexed when presenting at the lower outlet; inattention to this point may not only mar the success of the author's manœuvre, but lead to ruptures of the vestibule and adjoining tissues. Dr. Dumas concludes by reference to observations taken by M. Passarini, confirming the success of his method; and also points out how greatly the period of expulsion is shortened. In a short note appended to his paper, he condemns the use of all instruments (including a special speculum invented by Professor Carlo Minati, of Pisa) for prefœtal dilatation, and claims for digital dilatation that it possesses the advantages of delicacy of manipulation and accuracy of information such as may be gained in no other way.—*American Journal of Medical Sciences.*

SCIENTIFIC ADVANCE IN THE TREATMENT OF TUMORS OF THE BRAIN.

Experimental research is constantly adding to the resources of the curative art, and is aiding to achieve new triumphs over diseases hitherto beyond reach. A correspondent writes: In a paper read before the Royal Society on June 10, Dr. C. E. Breevor and Professor Victor Horsely, F. R. S., gave the result of an experimental investigation of the functions of that area of the cortex of the brain which Dr. Ferrier showed to be the centre for the movements of the upper limb. They found that when the upper part of this area was stimulated, the movements commenced in the shoulder; that, when the lowest part was stimulated, the movement commenced in the thumb; and that, when the intermediate part was stimulated, the movements commenced in the wrist.

These phenomena will be seen to be in agreement with the observations on the priority and the "march" of movements made by Dr. Hughlings Jackson in the particular type of epilepsy to which his name is often applied. It was not long before an occasion arose for applying the knowledge gained by these experiments to the cure of disease. A man was admitted into the National Epileptic Hospital (to which both Dr. Beevor and Dr. Horsely are attached) suffering from Jacksonian epilepsy, by which he had been incapacitated for two years. The fits began in the thumb; and Dr. Hughlings Jackson, under whose care the patient was, believed that the case was one to which the new knowledge with regard to the situation of the centre for the thumb might be applied, although the symptoms diagnostic of tumor were very vague. Owing to the great difference in complexity between the brain of the monkey and of man, there was, when the investigations of the functions of the cortex of the brain were first undertaken, considerable difficulty in applying the results obtained.

At the present time, however, these difficulties have been almost completely overcome; and the relation of the cranium to the subjacent convolutions has been thoroughly worked out.

Mr. Horsely, therefore, although the patient presented no external signs of disease, and the skull had not been injured, was yet able, by measurement, to apply his trephine over the cortical area which contained the thumb centre. On removing the piece of bone cut out by the trephine on its first application, a tumor was detected immediately beneath. The hole made by the trephine was enlarged, and the tumor, together with the rest of the thumb-centre, was freely excised. As in the case to which reference was made a fortnight ago, Mr. Horsely treated the wound on precisely the same principles as those which he had found to be successful with monkeys after experimental operations, and the results have left nothing to be desired. The operation in this second case was performed on June 21, and the wound healed by immediate union, so that on June 26 there was only a very small granulating surface, where drainage had been maintained.

We find, on inquiry, that a week after the operation the man was quite well, had had no fits, and was recovering power in the paralyzed limb. The other patient, upon whom Mr. Horsely operated three weeks ago, is also in excellent health, and has had no fits since the operation; it will be remembered that this man was suffering from traumatic epilepsy of a very severe type, and that the operation consisted in the excision of the scar in the brain.

The second case, however, which we now record, is distinctly more remarkable, inasmuch as there was no wound or other external sign to guide the operator, who had to depend entirely on the knowledge of the anatomy and physiology of the brain gained by experiment, combined with the pathological generalization established by Dr. Hughlings Jackson. It is not too much to say that the successful termination of these two operations proves that a new departure in the treatment of certain diseases of the brain has in truth commenced. In operating on monkeys, it has been found that the wounds in the brain and membranes made in the operation of trephining, will, as a rule, heal in four or five days; and this case of Mr. Horsely's shows that the same holds good with man when the line of treatment is the same. These two cases will form an interesting subject for discussion at the meeting of the British Medical Association at Brighton. The subject of cerebral surgery will be introduced by Mr. Horsely, who will explain his method of treating the wounds; and among the large mass of illustrative material which he is bringing together to illustrate his paper, will be photographs of these patients before and seven days after the operation, showing the condition of the wound at the latter date.

The discussion is certain to be of the highest interest, for both Dr. Hughlings Jackson and Dr. Ferrier have expressed their intention of taking part in it. It would be rash to speak of either of these two cases at present as cured; it is possible that the traumatic epilepsy may recur, and that the patient from whose brain a tumor has been removed may have another elsewhere within the cranium; in both cases, however, a hopeful attitude is fully justified; the probabilities are distinctly in favor of the anticipation that the cortical tumor was solitary and will not recur. The point in treatment, and a very important one it is, which has been established, is unattended by danger to life when the wound is treated on the basis of the knowledge acquired by recent experimental research on the principles which have been found to be successful in monkeys. —*British Medical Journal.*

THERAPEUTIC PROGRESS.

The Action of Caffeine.—Dr. A. Langgaard, in a recent article on the action of caffeine, mentions a case of poisoning by curare successfully treated by an injection of this drug (dose one grain). He also recommends caffeine in poisoning by conia.

Manganese as an Emmenagogue.—Professor Thomas considers two-grain doses of the biniodide of manganese, in pill form, three times a day throughout the month, and including the menstrual period, as the best means to regulate the monthly flow. As to time and amount, he also believes it to be superior to iron in chlorosis and anæmia.

Cancer Powder.—The following powder is said to kill the fetor of cancerous ulcers and to stop the pain:

℞.	Iodoform	18 grammes.
	Sulphate quinine	3 grammes.
	Essence of mint.	40 drops.
	Charcoal	15 grammes.

To be dusted over the ulcer daily.

NAPHTHALINE IN RENAL AFFECTIONS.—Pezzer treats certain renal affections with naphthaline, especially those that are accompanied with difficult micturition; and, when fetid urine is passed, the results are generally good. In pyelonephritis a gram and a half are given, also in cystitis and prostatitis, with retention of urine, likewise for stricture complicated by fistula. Its action is analogous to that of turpentine.

URETHAN AN ANTIDOTE TO STRYCHNIA.—This recently introduced hypnotic has been found by M. Coze to be an effective antidote to strychnine, not only suppressing the tetanic symptoms, but preserving the life of the animal after receiving many times more than a fatal dose. Whether urethan in such a case acts as an antispasmodic and whether it could be used with advantage in tetanus are points not yet decided.

THERAPEUTIC ACTION OF COMMON SALT.—Dr. Branche asserts that salt is a valuable remedy in the treatment of scrofula, anæmia, and tuberculosis. Pidoux advises phthisical subjects to use it in excess with their meals. Bouchardat observes that salt lessens the excretion of sugar in diabetes, and at the same time diminishes their thirst. Reliable observers have reported cures from the administration of salt in doses of from one hundred and fifty to two hundred and twenty-five grains in cases of intermittent fever.

ANCHIETEA SALUTANS.—The root of this plant, having a popular reputation in Brazil as a remedy in skin diseases, has been recommended as useful in syphilis. The dose is 0.1 to 0.35 gram of the powdered root daily. The drug is also administered in the form of a syrup prepared from a tincture of the root. In consequence of the drug being used for syphilis and provoking a flow of saliva it shares with some other substances the name of "vegetable mercury." The first effects of the drug are drastic, but these pass off in a day or two. An alkaloid has been isolated from the root bark, called "anchietine."

SOLUTION FOR LEUCORRHŒA.—For the treatment of leucorrhœa and fetid vaginal discharges, the following is recommended:

℞.	Chlorate of potassium	ʒiij.
	Tincture of opium	ʒiij.
	Tar water	ʒviij.

M. Sig.

Two or three teaspoonfuls to a quart of warm water injected morning and night. When there is pruritus vulvæ with the leucorrhœa, a solution of equal parts of tincture of iodine and iodide of potassium should be made and a teaspoonful of this in one or two quarts of hot tar water injected twice a day.

Cocaine as a Diuretic.—Drs. Da Costa and Penrose have obtained a marked diuretic action with cocaine when administered in doses of from half a grain to a grain two or three times daily. It is especially recommended in cases of cardiac insufficiency with dropsy.

Iodal.—Dr. Trousseau has experimentally used an ointment of iodol (one part to five of vaseline) and a solution (three parts to thirty-five of alcohol and sixty-two of glycerine) in affections of the eye. It was found that the introduction of the solution into the eye caused pain, due to the alcohol, but the ointment caused none. In simple blepharitis the iodol proved inferior to red precipitate or zinc oxide, but it succeeded very well in ulcerous cases. It was also useful in cases of granular and chronic conjunctivitis.

Eucalyptus and Glycerine as a Dressing for Erysipelas.—Dr. Chenery recommends as a dressing for erysipelas the following:

℞.	Fluid extract eucalyptus................	1 part.
	Glycerine.......................................	3 parts.
M.		

This mixture to be freely applied over the eruption, out on the sound skin, covered with a pad of cotton, and changed sufficiently often to keep the part thoroughly moist and protected from the air.

Some Therapeutic Effects of Caffeine.—Dr. Cochrane, in seeking a preventive for the depression and wretchedness which sometimes follows the exhibition of morphine, found caffeine all that could be desired, the only unpleasant effect is the thirst induced. He uses it in rheumatism and other diseases where there are signs of cardiac failure; in cases of hysteria, of convulsions in children and infants, who were teething or suffering from meningeal irritation, with the best results. He speaks very highly of its powers to stimulate the heart or of its calmative co-operation with morphia in acute alcoholic mania, when the heart begins to falter on account of the duration of the insanity and its concomitants. The drug is used hypodermically in about the same dose as of morphine. The following formula is used:

℞.	Pulverized caffeine,	
	Pulverized sulphate morphia, āā....	gr. $\frac{1}{6}$.
	Pulverized sulphate atropia........ ...	gr. $\frac{1}{100}$.
	Camphor water.............................	♏xx.

Criticisms on Familiar Prescriptions.—Attention is called by Mr. Kyner to some incompatible prescriptions that have come to his notice, and methods suggested of modifying some of them so as to render them compatible without setting aside the therapeutic effect intended. Incompatible prescriptions may be divided into three classes—pharmaceutical, chemical, and physiological. Pharmaceutical incompatibility nearly always depends upon the disproportion between the alcohol and water in the preparation joined in the prescription; in such a mixture as—

℞.	Tincture nux vomica,	
	Fluid extract ergot, āā	℥i.

alcohol is in excess; the latter being made with dilute alcohol, and containing substances not soluble in strong alcohol. These are, therefore, precipitated, when added to tincture of nux vomica, which contains eight parts of alcohol to one part of water. The precipitate clings to the bottle, causing considerable loss of the medicinal constituents of the ergot. After several experiments, I found the following to give a clear mixture:

℞.	Tincture nux vomica,	
	Fluid extract ergot, āā	ʒvii.
	Water	ʒii.

Another incompatibility of the same order is—

℞.	Fluid extract ergot	℥iiiss.
	Tincture chloride iron	℥ss.

The precipitate in this case may be avoided by diluting the tincture of iron with an equal volume of water. Another form is—

℞.	Resin podophyllin	gr. i.
	Aromatic syrup rheubard	℥ii.

The resin being insoluble in the syrup, no matter how intimately they are mixed, it will separate in time and adhere to the bottle. The addition of a small quantity of aromatic spirits of ammonia, which mixes very well with the syrup, will dissolve the resin and avoid the objections. It is a common thing to receive a prescription for compound tincture of cinchona, combined with aqueous fluids; a precipitate being almost invariably the result. Very few tinctures and fluid extracts bear dilution with water. When dilution is necessary, simple elixir will generally do better. Chemical incompatibilities are dependent on the laws of chemistry, and the nature of the substances involved is materially changed. The only remedy is to avoid the use of the incompatible substances in the same mixture. I have frequently received this prescription:

℞.	Sulphate zinc	gr. xx.
	Sulphide potassium	gr. xxx.
	Water	℥iv.

The zinc sulphate and potassium sulphate react to form insoluble zinc sulphide and potassium sulphate. Also—

℞.	Sulphate quinine	gr. xxx.
	Dilute sulphuric acid	q. s.
	Iodide potassium	ʒii.
	Water	q. s. ℥iii.

Potassium iodide produces precipitates with most alkaloids, and in this case gives such a bulky precipitate with the quinine as to render the mixture unfit for use. Another—

℞.	Bichloride mercury	gr. i.
	Biborate soda	gr. xx.
	Glycerine	ʒiv.
	Tar water	q. s. ℥iv.

By action of the borax an insoluble mercury salt is formed, and, as the mixture is intended for a spray, no effect can be expected from the mercury. Another similar to the above, with zinc sulphate instead of mercuric chloride, to be used also as a spray, is rendered inactive by the zinc forming an insoluble salt with the borax. In the following:

℞.	Sulphate magnesia	ʒss.
	Phosphate soda	ʒss.
	Chloride soda	gr. xx.
	Sulphate iron	gr. x.
	Infusion quassia	℥iv.

insoluble magnesium phosphate is formed, making a very unsightly mixture. So also—

℞.	Sulphate morphia	gr. i.
	Compound syrup squills	ʒi.
	Bicarbonate soda	ʒi.
	Water	q. s. ℥ii.

The alkaline carbonate causes the morphia to precipitate, and after standing several days, all can be collected on a filter; the filter giving no reaction for morphia. Another on the same principle is—

℞.	Sulphate morphia	gr. vi.
	Biborate soda	℥iv.
	Camphor water	℥vi.

Here the borax acts the same as the carbonate in the previous case. Prescriptions similar to the following are common, owing to the fact that licorice is an excellent vehicle for quinine:

℞.	Sulphate quinine	gr. xxx.
	Dilute sulphuric acid	q. s.
	Fluid extract glycyrrhizin,	
	Syrup,	
	Water, āā	℥i.

Glycyrrhizin, the sweet principle of licorice, is a compound of glycyrrhizic acid and ammonium, and in the presence of acids is decomposed; glycyrrhizic acid being set free. This is a very peculiar insoluble gelatinous substance, which carries the quinine down with it, and forms a semi-solid mass in the bottom of the vessel. The ammonia aids in the precipitation by neutralizing some of the acid which holds the quinine in solution. It is hardly within my province to discuss physiological incompatibility, but the prescribing of pepsin combined with sodium bicarbonate, is so frequently done, and is so gross an error, that it deserves mention. This practice has become so common that a certain hospital in this city has the following formulæ in its pharmacopœa:

℞. Pulverized pepsin and soda—
Saccharated pepsin........................ gr. ii.
Bicarbonate soda.......................... gr. i.
M., ft. chart. number one.

—*Polyclinic.*

SPECIAL NOTICES.

William M. Dodson, M. D., Wet Glaize, Missouri: I have a patient who had such an aggravated attack of rheumatism that I did not imagine any medicine or combination of medicines could afford relief. Tongaline effected a radical cure.

Dr. Wm. Alex. Greene, Macon, Georgia, writes: * * * I cheerfully state that I have tested the virtues and efficiency of Colden's liquid beef tonic in my private practice, in cases of general debility, weakness, depression, dyspepsia, loss of appetite and nervous afflictions, when medicine had proved more than useless. I have found it the best remedy I ever used in chronic alcoholism, where the stomach is always irritable, and food required to nourish and invigorate the drooping strength and nervous depression.

Delirium Tremens.—I treated the most intractable case of delirium tremens it has ever been my misfortune to meet. I used all the usual remedies, and the active delirium continued unabated for more than two weeks, the patient going into a typhoid condition, from which he rallied only with the most careful attention and judicious treatment. I assured him a second attack would be fatal, and for several months he faithfully abstained from the use of alcohol. About January last, however, he broke over and began drinking harder than ever, and I daily looked for the return of "snakes." In the latter part of July last, I was called to see the same patient and found him suffering with a severe cystitis, brought on by exposure and excessive stimulation. I assure you I undertook the treatment of the case with considerable trepidation, fearing delirium, as I had, of course, to withold stimulants. I used other nervines and found that the stomach was in such a congested condition that it would not bear them. Nervousness was prominent and the dread persistent. I put him on celerina, which was well retained by the stomach, and promptly relieved the nervousness. In a few days, however, my supply was exhausted, and it was some time before I could replenish it, during which time the snakes were beginning to appear; but as soon as I got the celerina and began its use, they promptly retired. The patient is now well and uses neither stimulants nor celerina. I wish I could tell you all about this case. The patient says that no matter what occurs or what symptoms arise, his wife says, "take celerina." I consider celerina par excellence—the nervine.—W. S. Coe, M. D., Talcott, West Virginia.

REMARKS ON THE USES OF PAPINE.—In the practice of medicine we are often called upon to treat patients who possess a peculiar idiosyncracy as to the effects of opium or any of its preparations. During January, 1886, I was called to see a lady suffering with acute peritonitis. She assured me that she could not use opium, as she had tired of it previously. But I gave her one-eigth grain of morphia sulphate and one one-hundred-and-twentieth grain of atropia sulphate hypodermically, and in a few minutes the depressing effect was noted, both upon the respiration and circulation; the pupils also became visibly contracted. I then tried the various usual substitutes for morphia in succession, but to no effect. I determined to try papine; but not being able to give it by the mouth on account of nausea, and as she objected to the use of the hypodermic needle, I gave her two-drachms per rectum, and repeated it in one hour. The result was that she sank into a quiet, peaceful sleep, which lasted for several hours. During the remainder of her sickness I gave her papine, with the most gratifying results. As soon as her stomach would retain it, I gave it to her by the mouth in one drachm doses. I have also used papine in a case of uterine cancer, in lieu of morphia. In cases in which patients have been taking morphia until it has lost its anodyne influence, papine is well adapted. Some time ago (in absence of the family physician) I was called to see a lady one night, in great haste, who was suffering with malignant disease of the uterus. On my arrival the nurse informed me that she had given her a grain of morphia, with suitable percentage of atropia, every hour for five or six hours, and during the intervals she had given her chloroform, but to no effect whatever. Accordingly I gave her thirty minims of papine with eighth grain morphia sulphate, repeating it in fifteen minutes, and in a short time she fell asleep and slept for six hours, which was more than she had slept at a time for months. In pneumonitis, pleuritis, and bronchitis I have found papine to answer an excellent purpose. In dysentery it is useful both as an anodyne and in relieving the tenesmus. In the diarrhœa of children I frequently combine with it bismuth subnitrate and prepared chalk. I have used it also in cystitis. In neuralgia, when I wish an anodyne, I use papine. As an anodyne it is equal if not superior to morphia; and I have never yet seen any unpleasant effects from its use. As a hypnotic I find it to be an agent of great value. It is inferior to bromida when we simply wish the effect of a hypnotic. But it fulfills the indications when we wish a decided anodyne as well as a hypnotic influence. I trust that the readers of the *Virginia Medical Monthly* may give this drug a trial, as I feel that they will be amply repaid for their trouble.—Wm. J. Crittenden, M. D., in *Virginia Medical Monthly.*

CONGENITAL HEREDITARY ATONIC DYSPEPSIA. — During a practice of twenty years, I have prescribed lactopeptine to patients of all ages, and have never been disappointed in its action when indicated. But I desire to speak in particular of its action in a case of congenital hereditary atonic dyspepsia, in an infant, to whom I began to administer this remedy on the third day after birth. Mrs. H. L. S., Langside, Mississippi, was delivered of a male child in whom there was manifested well marked symptoms of atonic dyspepsia. The mother had been a victim of dyspepsia from girlhood, and had inherited the malady from her mother. The infant was put to the breast a few hours after birth, and nursed readily; but almost immediately rejected the milk. Repeated trials all resulted in vomiting, followed by exhaustion. Other articles of food were tried, including cow's milk, etc., without improvement. The child was in great danger of starvation. On the third day, I began the administration of lactopeptine. The effect was immediate and almost miraculous. I ordered one-sixteenth of the adult dose to be dissolved in about two ounces of breast milk (drawn from a robust, healthy wet nurse) and administered every two and a half hours. There was no more rejection of milk—except the usual vomiting of curdled milk, to relieve the crowded state of the stomach, which occurred occasionally, after the first ten days. Condensed milk, cow's milk (properly diluted and sweetened), Mellin's food, boiled bread (pap), were, after a while, substituted for breast milk, but always with lactopeptine. A steady improvement was manifest from the beginning, and kept up during the first dentition, which process was gone through with in a most satisfactory manner. No outward diarrhœa or intestinal disturbance characterized this period, and, at ten months, the child was virtually cured of its dyspepsia, and could eat and digest ordinary food such as children of that age may do in good health. The parents of the child believe firmly (as I do) that lactopeptine saved their infant. In cholera infantum, in diarrhœa, and in all of the disturbances of the alimentary canal, during dentition and early infant life, I find lactopeptine an ever-effective and reliable remedy. In adult dyspepsia, all are now familiar with its beneficial effects; but I should be glad if the profession would be induced to try it in the vomitings, diarrhœas and dyspepsias of infancy. I recall several babies whose lives I believe I could have saved had I known, ten years ago, what I do now of the ready adaptability of lactopeptine to infants' ailments.—R. W. Beers, M. D., of Angola, Louisiana, in *Medical Brief.*

THE

PHYSICIAN AND SURGEON

A MONTHLY MAGAZINE,

DEVOTED TO MEDICAL AND SURGICAL SCIENCE.

VOLUME VIII. DECEMBER, 1886. NUMBER XII.

ORIGINAL ARTICLES.

THREE MONTHS' EXPERIENCE WITH THE PNEUMATIC CABINET, WITH NOTES AND ADDITIONAL CASES.*

BY KARL VON RUCK, M. D., NORWALK, OHIO.

At our meeting three months ago, I called the attention of this society to the treatment of lung diseases by the method known as pneumatic differentiation, by means of the pneumatic cabinet, which instrument I had the pleasure of showing you, at the same time demonstrating the principles involved in its practical application.

I also outlined then, the claims made for this method of treatment by members of the profession, who have tested it, and you are undoubtedly familiar with their reports, which have appeared in the medical journals.

From the interest taken by you in this new method of treatment as manifested at our last meeting, and the request for reports as to its therapeutical value in my hands, made at the same time, I believe the account I am able to give you to-day may not be uninteresting; and without reiterating what has been stated in regard to the description of the instrument, and the physiological effects of its application, I will proceed to the report of the cases treated, giving you a detailed account of the results of physical examinations made, which will enable you to correctly appreciate the pathological conditions present when the patients came under treatment, and how far they have been removed or recovered from. I may further say, that no internal medication was resorted to in any case, except where it is expressly so stated.

---

*Read before the Delamater Medical Society at Norwalk, Ohio, October 13, 1886.

Case I.—Mrs. D., age thirty. Phthisical family history. Has coughed six months, lost flesh, feels weak and tired, thinks she has frequently slight fever, complains of a dull, heavy feeling across upper part of chest, and pain in the region of the heart.

Examination July 13: Diminished expansion over right apex, depression below outer half of right clavicle, comparative dullness over right upper lobe to third rib anteriorly, vocal fremitus increased, and respiratory sounds diminished as compared with left side, expiration higher pitched and prolonged, fine crepitant râles below clavicle. Left lung and heart normal. Temperature, 100; pulse, 100; respiration, 30; expansion, 1½ inches.

Diagnosis: Incipient catarrhal phthisis.

Treatment in pneumatic cabinet for three weeks, in all six treatments, with the following results: The sense of pressure across upper part of chest, and pain over cardiac region, yielded to the first treatment and did not return, cough stopped entirely by the end of the second week, and upon examination three weeks after beginning treatment, expansion is found equal on both sides, depression below right clavicle has disappeared, percussion sounds are equal and of normal quality, both behind and in front. Respiration normal vesicular, no râles whatever. Temperature, normal; pulse, 80; respiration, 20; expansion, 2½ inches. Subjectively she feels very much improved, strong, free of pain and cough. She gained five pounds in weight, and considers herself well.

(Note.—I have heard from this patient November 20, and she continued in good health, without return of any previous symptoms).

Case II.—Miss R. K., age twenty-four. Phthisical family history. Coughed and expectorated, since last fall, lost flesh and strength, has had fever and night sweats within last month; there is great difficulty in breathing upon slight exertion, pain over both upper lobes in front, and under shoulder blades, no appetite; has been obliged to give up her position as clerk in a store.

Examination July 5: Very superficial breathing, deficient expansion on both sides—more marked over left apex. Attempt at anything like full inspiration causes cough and severe pain across upper part of chest. There is exquisite tenderness, in front; even the slightest stroke is not tolerated, and percussion can therefore not be performed satisfactorily. Respiration is feeble anteriorly, with short, harsh inspiratory sounds, expiration is higher pitched and prolonged on both sides; moist râles are present in upper half of left upper lobe, none on right side; over lower half of both upper lobes respiration is feebly vesicular, no respiratory sounds audible in the inferior lobes. Posteriorly no respiratory sounds are audible, except between the scapulæ, where normal bronchial breathing is heard. Tubercle bacilli (by Ehrlich's method) are found in sputa. Temperature, 103½; pulse, 120: respiration, 60; expansion, ¾ inch; weight, 101 pounds.

Diagnosis: Tubercular consumption; infiltration of both upper lobes, with involvement of pleura beginning softening on left side.

During the first three weeks of treatment much difficulty was experienced, as the slightest increase in pressure caused her to complain of sharp pain, and only two tenths of an inch rarefaction was reached in that time. Her temperature became normal after three or four treatments, and at the end of three weeks re-examination revealed better expansion, especially on right side, the percussion note was better, and there was scarcely any tenderness. On left side there was still diminished resonance, more marked below clavicle, extending down to third interspace. The harsh character of inspiration is now intermingled with a vesicular quality on right side, and expiration is equal in pitch and duration to inspiration. Over left apex the harsh inspiration is still present, but the râles are not so abundant; expiration is still higher pitched and prolonged. Temperature, normal; pulse, 72; respiration, 48; expansion, 2 inches; weight, 103½ pounds. Bacilli still present in sputa.

September 1: I have the following note in my case book: Right lung: percussion note normal, no tenderness. Left lung: slight dullness confined to immediately below inner two-thirds of clavicle, still some tenderness, but nothing compared with that found on former examinations. Respiration more vesicular on right side, very distinct posteriorly and in lower lobes of both lungs. More of the vesicular element present over left apex, only here and there a few moist rales. No bacilli in eight slides examined. She says she feels ever so much better, works again in her old position, does not get tired as before, can reach up with her arms, which she has not been able to do in many months without pain, coughs but little, expectoration is slight and mucous in character, appetite is good, and sleep is refreshing. Temperature, normal; pulse, 88; respiration, 32; weight, 104; breathes with five-tenths inch rarefaction without pain; expansion is 3 inches, without pain or cough.

September 28: Patient has been irregular in treatment, averaging about two sittings a week. There is now absence of pain on percussion, and the resonance is normal over both upper lobes. The respiratory sounds are also normal vesicular, the prolonged and higher pitched expiration having disappeared, a few moist rales during inspiration are heard immediately below left clavicle. Pulse and temperature, normal; respiration, 28; expansion, 3 inches; weight, 107 pounds; feels well. On account of the presence of the rales below left clavicle she is advised to continue treatment for another month.

(Note.—November 25: Patient took four or five treatments after last examination, and during the month of October she had a moderate attack of bronchitis, due to cold, which yielded quickly to one or two treatments. Subsequently all rales disappeared, and she continues well, and says she feels better than she has for years).

Case III.—Miss P. M., age twenty-three. Has suffered from malarial trouble for two years. Last winter she had a severe cold, and has coughed a little ever since. There is a phthisical family history. She lost flesh, has some fever, and complains of feeling tired and exhausted.

Examination August 4: She has comparatively a small chest, with projecting sternum. Right lung: slight dullness above and below clavicle, with marked depression below outer half. Expansion deficient over right apex, and vocal fremitus is increased. Respiration is weak and indistinct down to the second rib, accompanied by moist rales during inspiration; below this point it is normal vesicular, perhaps slightly exaggerated, and in marked contrast with the feeble respiratory sounds above. Left lung normal. Temperature, 99⅗; pulse, 96; respiration, 22; expansion, 1¾ inches; weight, 119 pounds.

Diagnosis: Incipient catarrhal phthisis.

Patient was treated daily for one month. During this time oil of eucalyptus, two minims, with quinine, five grains, in capsules, were administered for several days following malarial manifestations. Her cough disappeared after first few treatments, and she rapidly gained in flesh and strength.

September 5: Lungs re-examined. Percussion is normal, resonance the same as on left side; the depression below right clavicle has disappeared, respiration is of normal vesicular quality, no rales whatever, nothing abnormal anywhere. She feels well and strong. Temperature, normal; pulse, 70; respiration, 16; expansion, 3¼ inches; weight, 129 pounds.

(Note.—November 24: Patient heard from to-day. She continues well in every way).

Case IV.—Mr. H., of Ashland, Ohio, fifty years old; miller. Family history good. Gives history of acute pulmonary trouble occurring last winter, on both sides. Had a tedious illness, and never quite recovered. Since early this spring he has been losing more rapidly in flesh and strength, has coughed and raised a great deal, has night-sweats, no appetite, gets out of breath on the least exertion.

Examination July 22: There is deficient expansion and dullness on percussion, in front, on right side, from the second interspace downward, also in axillary region, and comparative dullness over infraspinous fossa; percussion and expansion of apex normal. Respiration over region of dullness is bronchial and broncho-vesicular, with great abundance of moist fine and coarse rales, both anteriorly and posteriorly. Left lung: between second and third interspace circumscribed slight dullness; auscultation over this spot shows indistinct respiration and pleuritic friction sounds. Expectoration is muco-purulent. Temperature, normal; pulse, not noted; respiration, 34; expansion, 1½ inches; weight, 128 pounds.

Diagnosis: Chronic pneumonic consolidation.

This patient received treatment daily for five weeks. During the first treatment, and for half an hour afterward, he raised up mouthful after mouthful of muco-purulent matter, altogether about half a pint, and very free expectoration took place during and after each treatment for some days afterward, but both cough and expectoration ceased almost entirely by the end of third week. I could follow step by step the clearing up of the affected lung with my stethoscope, and his improvement in strength, gain of flesh and appetite was continuous—in fact the latter became almost ravenous.

August 30: Expansion was good, percussion sounds normal, here and there a few moist rales, respiratory sounds of vesicular quality only a little harsher than above. The circumscribed spot on left side remained unchanged, only the pleuritic friction sounds were less intense. While he had to be brought to my office in a carriage at the beginning of treatment, he walked a distance of about eight miles a few days ago without any special fatigue. Save a slight dyspeptic trouble, which he brings on by overeating, he considers himself entirely well and insisted upon going home, although I advised the continuance of the treatment for a short time longer. (The dull spot on left side I consider to be probably due to pleuritic thickening). On his discharge temperature was normal; pulse, 70; respiration, 16; expansion, 2¾ inches; weight, 139 pounds.

(NOTE.—November 20: Patient returned to-day, seeking further treatment on account of "feeling stopped up, and shortness of breath" which he says comes on when he exerts himself more than usual. He feels well otherwise. On examination I find no physical evidence of anything wrong with his lungs, even the dull spot and friction sounds on left side have disappeared. November 26: He has taken six treatments and his breathing is all right, and has been, since he took his second sitting in the cabinet).

Case V.—Mrs. E. R., age twenty-nine. Mother and sister died of consumption last winter. Her present trouble began while nursing these relatives. She coughs almost incessantly, has been loosing flesh and strength, has fever and night sweats, is unable to do her housework, and has been growing worse rapidly, within the last six weeks.

Examination July 22: Expansion less on right side than on the left. Slight dullness anteriorly on both sides, more on the right. Vocal fremitus increased on right side. Harsh inspiration over both apices, more marked on right side, on both sides expiration is higher pitched and prolonged over inspiration. Fine moist rales on right side, none on left. Posteriorly percussion note is equal; respiratory sounds are feeble and indistinct, short and wavy over right supraspinous fossa, with prolonged and higher pitched expiration. Sputa muco-purulent. Tubercle bacilli in considerable number. Temperature, 102; pulse, 108; respiration, 20; expansion, 1½ inches; weight, 101½ pounds.

Diagnosis: Tubercular infiltration of both apices; with beginning softening in right apex. She has also subacute catarrhal laryngitis.

After three weeks daily treatment lungs were re-examined and no particular change noted, except absence of moist rales on right side, with better expansion and more distinct respiratory sounds posteriorly, and lower lobes of both lungs. She has however improved in her general health, feels stronger, has better appetite, coughs much less, and her weight has increased from 101½ to 107 pounds. Night-sweats and fever have also ceased.

September 13: Treatment has been continued three to four times a week. Expansion is now equal, and better; percussion elicits no dullness, resonance is much improved; the short harsh inspiratory sound is absent over left, and less marked over right apex, inspiration equals expiration in duration, the latter is lower pitched than heretofore. Temperature, 99; pulse, 92; respiration, 24; expansion, 2½ inches; weight, 109 pounds. Coughs a little yet, but feels better in every way.

(Note.—October 28: Nothing abnormal in either lung, patient has had a cold, and laryngitis has again troubled her for about a week, but is better again, she does not cough at all, feels perfectly well and wants to stop treatment. Expansion, 2½ inches; temperature, normal; pulse, 80; respiration, 18; weight now is 112 pounds. Patient is discharged. November 14: Patient called and reported herself well).

Case VI.—Mrs. M. P. I was called to see this lady on the evening of August 16. Her husband stated that her menstruation had suddenly stopped, she having been exposed to cold. I found her complaining of a sense of compression in her chest, feeling as though it would burst, hands and feet icy cold, face and conjunctiva congested; pulse small and compressible, 134; respiration, 48; temperature, normal. On examining the chest I found a few moist rales, and a violent action of the heart, out of all proportion to the weak pulse. Heart sounds clear.

Diagnosis: Pulmonary hyperæmia.

The treatment ordered was a hot mustard food bath, hot applications to hands and arms, a brisk saline cathartic and aconite in small doses. Next morning she was apparently somewhat better, but toward evening her symptoms became again severe and I determined to try the pneumatic cabinet. She was brought to my office where she arrived so short of breath that she could hardly speak. With much difficulty and persuasion she was induced to take the treatment. After a sitting of fifteen minutes, breathing with four-tenths inch rarefaction, all her symptoms had vanished, as if by magic, and when she came out of the cabinet, she could not say enough to express her surprise and satisfaction at this very prompt result. She had no further difficulty. Menstruation returned the following night.

Case VII.—Miss F. C., age nineteen. Well marked phthisical family history. Present trouble began, while nursing her father, who died of tuberculosis last winter. Patient is extremely emaciated, complains of severe and constant pain in abdomen, has diarrhœa, coughs, and raises profusely, has fever and night sweats.

Examination July 17: Expansion hardly perceptible over both upper lobes, anterior surface of chest flattened and sunk in below clavicles. Percussion higher pitched then normal on both sides, below left clavicle a tympanitic spot about the size of a silver dollar. On auscultation, bronchophony especially on left side, harsh short inspiratory sounds over both upper lobes, accompanied by abundant moist râles, both in front and back; expiratory sounds replaced by râles, gurgling over tympanitic spot. Catarrhal râles in lower lobes. In sputa bacilli and elastic tissue in great abundance. Abdominal muscles contracted, tender and hard. Temperature, 103½; pulse, 130; respiration, 34; expansion, ½ inch; weight, 77 pounds.

Diagnosis: Tuberculosis involving both upper lobes, stage of softening and excavation, with probable tubercular deposit in abdominal organs.

Although not the slightest hope was held out, the patient and her friends insisted upon trying the cabinet treatment, which was reluctantly given for six weeks. After the third treatment the temperature became normal and remained so (excepting two or three short and slight febrile reactions) throughout the time she was under my care. For the diarrhœa and pain she received bismuth and opium, with some improvement in the former and arrest of the latter. She also took cod-liver oil and maltine, and later hypophosphites and Murdock's liquid food, but her nutrition could not be improved, on the contrary she lost six pounds, during the first month, but gained again two pounds during the last two weeks. The condition of her lungs at the time of discharge was unchanged on the left side, on the right side, I am satisfied, her expansion was better, and there were fewer râles than at first examination; she gained one inch in expansion.

(NOTE.—After discontinuing treatment she grew rapidly worse and died a few weeks later. This was evidently not a case for cabinet treatment, and I have since been careful to exclude similar cases).

Case VIII.—Mrs. W., age forty. Phthisical family history. Has not been in good health for ten years; she has a mitral regurgitant murmur, but compensation is fairly good. While examining her heart several years ago my attention was directed to her right lung on account of deficient expansion, and upon closer examination I found evidence of slight consolidation at the apex. Upon inquiry it was learned that she had a slight hacking cough. There has been no material change in her condition until this spring, when the consolidation was found more marked, and extending down to third rib in front.

July 13: Examination showed in addition, the presence of moist râles, and cog-wheel respiration, depression below clavicle, increase of vocal fremitus, weak and indistinct respiratory sounds. Temperature, normal; pulse, 90; expansion, 1½ inches; counter-irritation had previously been employed without benefit. She suffers much from palpitation and pain in the region of the heart.

Diagnosis: Catarrhal phthisis, first stage.

After one month's treatment (three times a week) patient is re-examined and the evidence of consolidation is still present but confined to immediately below clavicle, cog-wheel respiration absent, respiratory sounds stronger—broncho-vesicular above and below clavicle with moist rales. Her heart has not troubled her at all since beginning of treatment. Temperature, normal; pulse, 84; respiration, 20; no change in weight.

September 15: Patient has continued the treatment on an average about twice a week. There is no further evidence of consolidation, percussion note does not differ as compared with left side, depression is nearly filled out, there is vesicular respiration above and below clavicle, only a little harsher than on left side, still a few moist rales. Her condition otherwise remains the same.

(NOTE.—October 20: Patient has taken about ten or twelve more treatments. There is no further evidence of rales or any other abnormal physical sign. Temperature, normal; pulse, 76; respiration, 18; expansion, 2½ inches; no change in weight. Discharged).

Case IX.—C. R., a little girl nine years old, has whooping-cough. Experimental treatment in pneumatic cabinet with inhalation of solution of corrosive sublimate, 1-2000, and later solution carbolic acid, four per cent.

Treatment extending over four weeks. The case followed a mild course throughout but was not influenced in any particular way.

Case X.—Same patient. Her whooping-cough having subsided, she contracted a rather severe acute bronchitis with temperature, 101½; pulse, 96; respiration, 34. There were dry rales throughout both lungs, and a severe dry cough with pain over upper part of sternum. She received three treatments on successive days, when every symptom had disappeared. No medicine was given. Inhalations were fluid vasaline.

Case XI.—Mrs. C. R., age thirty-one. Phthisical history. Lung trouble began three years ago. She was under my care last summer, and gained then somewhat in her general health, but the local condition did not improve and in some respects was less satisfactory on account of many adhesions left from a number of attacks of circumscribed pleurisy from which she had suffered during that time. She went south during the winter and on her departure the left lung only was affected, there was consolidation of the whole upper lobe with abundant rales. She returned to me in the latter part of June and her lungs were re-examined July 2.

Patient looks pale, worn and emaciated, much more so, than when she left here last fall. Inspection shows superficial respiration and diminished expansion over both upper lobes, more so on left side, depression below outer half of left clavicle; any attempt at full inspiration causes pain on both sides, and severe coughing. On percussion the note is higher pitched than normal on right side anteriorly down to third rib. Marked dullness over the whole of left upper lobe; immediately below middle of left clavicle there is a spot about one and a half inches in diameter where percussion note is tubular-tympanitic; posteriorly dullness in supraspinous fossa on right side, and on the left extending to lower angle of scapula. On auscultation, there is harsh inspiration over right apex both anteriorly and posteriorly, expiration is tubular and prolonged. Over left upper lobe inspiration is harsh accompanied by creaking pleuritic friction sounds and abundant moist fine and coarse rales. Over tympanitic spot, gurgling and bronchophony. The expiratory sounds are replaced by rales and in lower left lobe no respiratory sounds are audible. Larynx looks pale, the ary-epiglottic folds show the characteristic pear-shaped enlargement. Sputa contains tubercle bacilli and elastic tissue. Temperature, 101; pulse, 116; respiration, 36; weight, 94; expansion, 1¼ inches.

Diagnosis: Chronic catarrhal phthisis, with tubercular infiltration of both apices, softening and excavation in left upper lobe, and tubercular infiltration of ary-epiglottic folds.

Her general health is less satisfactory compared with her condition last fall, appetite is indifferent, she cannot sleep; feels tired and worn out, especially mornings, coughs a great deal, raises greenish fœtid smelling pus, frequently streaked with blood.

She complains bitterly of a peculiar sense of pressure over front of chest, which she says is unendurable and constant, and the least exertion produces dispnœa and cough. After two weeks treatment her lungs were examined: depression below right clavicle was less marked, the harshness on inspiration diminished, expiration lower pitched and equal to inspiration. On left side, diminution of the creaking pleuritic friction sounds, in number and in intensity, and over lower lobe respiratory murmer of an indistinct quality with fine moist rales, is perceptible. Otherwise left lung is the same. She feels better in every way, has good appetite and sleeps well. Expansion, two inches; temperature, normal; pulse, 108; respiration, 24; weight, 96½ pounds.

August 3: Patient has continued treatment daily. To-day there is normal vesicular respiration over right apex excepting above clavicle where it is still harsh. The depression below clavicle is scarcely noticeable. On left side there is gurgling in the cavity, but the surface over which it is heard is smaller, now about the size of a half dollar. The respiration over the whole of upper lobe has improved, there being less harshness, and more of a vesicular element present; the pleuretic friction sounds have diminished and the rales are not so abundant. Respiration is normal in lower lobe. In sputa I found some elastic tissue, but no bacilli. Expansion, 2 inches; temperature, normal; pulse, 104; respiration, 20; weight, 99 pounds. She sleeps well, has a good appetite, coughs and raises less, can breath easy, and is highly elated over her favorable progress.

August 28: Patient has taken a slight cold, affecting the throat, her larynx contains much mucous, the epiglottis and ary-epiglottic folds look œdematous, and of dusky red color. She coughs almost incessantly day and night, does not bear opiates, and is finally relieved by the occasional inhalation of chloroform. Subsequently applications of tannin were made.

September 7: The trouble with larynx has in a measure subsided. Nitrate of silver solution, twenty grains to the ounce, is applied every other day; otherwise she is doing well. The harsh spot on inspiration at the extremity of right apex is still present, the left lung is improving, there being better resonance, fewer rales, amphoric breathing over cavity with gurgling on forced inspiration. Temperature, normal; pulse, 88; respiration, 20; expansion, 2¼ inches; weight, 100½ pounds.

September 28: She says she feels better than she has before in years.

(NOTE.—October 20: Lungs are in much better condition than at last examination, the harshness at right apex is scarcely perceptible, and there is normal vesicular respiration both in front and back throughout the entire right lung. In left lung respiration is broncho-vesicular at apex, with amphoric sound over cavity, no gurgling on forced respiration, the cavity is evidently dry and contracting. Below upper third I find a few moist rales; respiration is approaching the normal vesicular quality, nowhere prolonged over the inspiration, a little harshness still present. Larynx is still somewhat troublesome, causes her to cough, and for this she consulted Dr. G. C. E. Weber, of Cleveland, who, thinking the cough to be due to a somewhat elongated uvula removed a portion of the same. For a week or ten days the whole palate was much swollen and an acute pharyngitis supperadded, which has now subsided, but there is no improvement of the larynx nor of the cough. During this acute throat trouble she took very little nourishment and lost some flesh. A spray of cocaine solution relieves the cough for several hours and sometimes longer. She returns to her home in Texas for the winter, and is advised to use a spray of tannin for the larynx. Temperature, normal; pulse, 70; respiration, 20; expansion, 2¾; weight, 103½. November 20: Heard from her as doing splendidly. She feels well in every way, and coughs but little).

Case XII.—Mrs. E. C. W., age thirty. Good family history. Had a profuse hæmorrhage four years ago. No lung trouble was suspected, although she had more or less cough ever since, until last December, when she was sent to Florida, where she remained until a week ago. There she improved in her general health during the winter, but lost all she had gained during the summer. Now she coughs quite frequently, raises muco-purulent matter containing bacilli and elastic tissue. Sputa is frequently streaked with blood, and occasionally she rises a mouthful of fresh blood. Feels very tired and exhausted, appetite is fair, she sleeps well.

Examination of lungs August 23: There is relative dullness over upper two-thirds of left upper lobe, anteriorly and posteriorly; expansion is deficient on both sides, on left side anteriorly harsh, short inspiration, expiration higher pitched and prolonged, well marked vocal fremitus, moist râles and pleuritic friction sounds over region of dullness. Posteriorly respiration is indistinct, with few moist rales in supraspinous fossa. Right lung: inspiration harsh, short and wavy, heart sounds distinctly transmitted, but no marked dullness on percussion; expiration is higher pitched and prolonged. No râles. Ary-epiglottic folds are enlarged. Temperature, 99½; pulse, 106; respiration, 40; expansion, 1¼ inches; weight, 106 pounds.

Diagnosis: Tubercular infiltration of both upper lobes, with softening on left side.

September 23: Re-examined. Has been treated daily; expansion is much improved, especially on left side. Percussion over left upper lobe gives better resonance; there is still comparative dullness in front, but the note is equal to the right side posteriorly. The moist râles in left apex have disappeared posteriorly and laterally; are most marked now along the anterior border and down to the third interspace in front, expiration is shorter and lower pitched than inspiration, and there is less harshness in the inspiratory murmur. On right side inspiration is still harsh, expiration is normal in pitch and duration.

She coughs very little, has been growing better in general health, her expectoration is chiefly mucous, and much less in quantity, only mornings, and confined to one or two mouthfuls. Has not expectorated any blood since beginning of treatment. Temperature, normal; pulse, 80; respiration, 26; weight, 112 pounds; expansion, 2¼ inches.

(NOTE.—Patient was examined October 23, showing a continuous improvement in general health, and in the local condition of her lungs. At that time she was allowed a visit to her home in Canada, and during her stay there she contracted a severe cold, coughed much more, and on one occasion raised some blood. On her return there was evidence of bronchitis. November 14: The right lung was found clear of rales, respiration normal vesicular except at apex where inspiration is harsh. There are catarrhal rales over the whole of left lung, more abundant in upper lobe. Temperature, normal; pulse, 88; respiration, 28; expansion, 2¾ inches; weight, 116 pounds. November 28: There is no change in right lung, the catarrhal rales have disappeared in left lower lobe, over the upper lobe they are diminished in quantity, and respiration is of a harsh vesicular character in upper two-thirds. Temperature, normal; pulse, 72; respiration, 20; expansion, 3 inches; weight, 119 pounds. She feels well and strong, coughs but little, and her general health is very satisfactory. She continues treatment daily).

Case XIII.—Mr. W. Y., age twenty-three. Has had asthma since childhood. Of late years it has assumed a different form, inasmuch as it is now brought on by over-exertion and upon taking cold, whereas formerly no definite cause existed. The paroxysms now as a rule are short when produced by severe exertion, and last several weeks when he takes cold, and then he also coughs and expectorates a great deal. He is now suffering from an attack of the latter kind, and has not been able to lie down for three weeks, sleeps in a chair, resting his head on a table.

Examination of lungs August 29: Chest barrel-shaped, breathing altogether abdominal. Percussion: exaggerated resonance throughout, more especially in upper lobe and along anterior borders. The area of heart dullness is found to give lung resonance. Upon auscultation no respiratory sounds are audible anywhere, but are replaced by a mixture of moist and dry rales, whistling and rattling, which can be heard from a distance. Pulse small, feeble, 130; respiration labored, 12; expansion, ½ inch. Permanent chest measure, 33½ inches.

Diagnosis: Pulmonary emphysema and bronchial catarrh.

Treatment: First to control the catarrh, with constant rarefaction of one-half inch, allowing the patient to breath into the cabinet. Inhalation of ten per cent. solution (hot) of muriate of ammonia. It required almost the patience of an angel and the persuasiveness of a Cicero to induce this patient to continue the treatment. It was a hot day, and he fairly steamed in the cabinet. He was, however, somewhat easier, and his wheezing stopped after he got home; he went to bed and slept all night even without a pillow. This encouraged him, and he received two or three additional treatments, when his cough and expectoration ceased.

To obtain any permanent effect upon the emphysematous condition, compression of the air in the cabinet, with expiration into the normal, or comparatively rarefied air suggested itself, and has been carried on daily for one month at this writing; it was by no means an easy task for me or the patient, still the progress made amply repays the trouble. He has had a slight intercurrent attack of bronchitis, which, however, made no special trouble.

September 29: His permanent chest measure at beginning of treatment was 33½; to-day it is 31½, and his expansion is 1½ inches; the area of cardiac dullness is becoming manifest upon expiration, and his respiratory sounds are distinct, and almost free from rales. He has had a bad cold without asthmatic seizure, has done hard work, and is able to run without any special inconvenience, in fact, the case is most satisfactory in its results, considering our entire inability to relieve such cases medicinally, and the short time he has been under treatment.

(NOTE.—This patient continued treatment another month; at the end of that time the limits of the lung did not exceed the normal. He had another bronchitis which quickly subsided. There were at his discharge, November 1, no rales whatever; respiration vesicular over both lungs. Chest measure, 30 inches; expansion, 3½ inches. November 28: He was still doing well, has had no asthmatic attack since his first treatment).

ADDITIONAL CASES.

Case XIV.—Mr. J. K., age fifty-eight. Mechanic. He had catarrhal pneumonia in spring of 1885, from which he had a slow but complete recovery. A heart lesion was diagnosed at that time, but no record was kept of the exact nature. For the last month or six weeks, he noticed that he was getting short of breath, and he coughed considerable. Was obliged to stop work a week ago, feels tired, short of breath, coughs and raises frothy mucus. Cannot lie on his left side, has to sit up in bed nights on account of short breath, has pain in cardiac region, and palpitation. There is slight œdema of lower part of legs and around ankles.

Examination of chest October 6: Lung resonance normal throughout. Region of cardiac dullness increased toward left side. Apex beat feeble, diffused two inches below left nipple.

On auscultation: Moist rales over both lungs. Mitral obstructive and regurgitant murmurs. Heart action feeble. Pulse intermits every third or fourth beat, irregular in volume and tension. Temperature, normal; pulse, 116; respirtion, 30.

Diagonsis: Hypertrophy of left ventricle, mitral stenosis and insufficiency with lost compensation, accompanied by pulmonary catarrh.

Treatment: Digitalis in gradually increasing doses for one week produced no change except nausea and loss of appetite.

October 12: Treatment by pneumatic differentiation: Four-tenths rarefaction, sitting twenty minutes with frequent rests. He expectorated very freely, after leaving cabinet. Pulse is much improved in quality, and intermits less frequently. During the following ten days he received eight additional treatments, with continued improvement. At the end of that time there is no sign of the previous catarrh, œdema of feet has disappeared, he breathes with ease, can sleep all night, and feels well. Pulse, 80; intermitted only twice during five minutes; heart action more forcible, the regurgitant and obstructive murmurs unchanged. He is able to work, and has had no further difficulty to the present time (November 27).

Case XV.—Miss L. S., age eighteen years. Good family history. Complains of hacking cough, which she had since spring, and of tired feeling, has to lie down during the day, lost flesh, menstruation delayed for several periods from one to three weeks—scant and painful.

Examination of lungs October 13: There is flattening below right clavicle to third rib. Chest small. Expansion deficient or right side, and only apparent on full inspiration, slight dullness above and below chavicle, and in supraspinous region. Inspiration harsh vesicular; expiration same pitch and prolonged in front; slight crepitation over apex. Has taken hypophosphites and iron for two months. Temperature, 99; pulse, 120; respiration, 24; expansion, ½ inch; weight, 94 pounds.

Diagnosis: Incipient catarrhal phthisis.

Treatment in pneumatic cabinet for three weeks, altogether twelve sittings. At end of this time there is nothing abnormal to be discovered by most careful examination of her lungs; subjectively she feels "ever so much better," says she is as well as ever. Menstruation came on during the treatment at regular time, was free and painless. Temperature, 98⅗; pulse, 80; respiration, 20; expansion, 2½ inches; weight, 109½ pounds, a gain of 15½ pounds in three weeks. Treatment discontinued.

November 26: She menstruated again at regular time, normal in amount and without pain. She feels well, has not coughed since beginning of treatment.

Case XVI.—J. G. Has had a severe cold for two months, coughing and raising more or less all this time. Has lost some flesh, feels exhausted, appetite is poor.

Examination of lungs November 4: Resonance good over both lungs. Expansion equal on both sides (three inches). Auscultation shows moist râles throughout both lungs, more on the left side. Temperature, normal; pulse, 100; respiration, 28.

Diagnosis: Chronic bronchitis.

Treatment in pneumatic cabinet, eight sittings, with complete cure of the bronchitis, and satisfactory improvement of general health. He says he feels as well as ever.

In conclusion, I venture to say that I consider the results accomplished as highly satisfactory. With the exception of Case VII, I have declined to accept patients whose cases were pursuing a rapid course in the latter stages of consumption. A number of such offered themselves for treatment. Most of the cases refused died since. I believe that in the first stage, cure will be the rule, and in those further advanced, permanent arrestment of the disease with improvement of the general health may be accomplished in a majority of the cases. Proper discrimination in the selection of cases is essential. I have so far seen no untoward effect in any case treated; a few have complained of giddyness when breathing in the cabinet, and for a short time afterward; a slight decrease in rarefaction has always succeeded in averting this at subsequent sittings. I have seen no hæmorrhage in any of the cases reported; in those who have raised blood before coming under treatment this symptom did not recur, with the exception of Case XII, and then during an attack of acute bronchitis, and during an intermission of two weeks while at home on a visit.

EXPERIMENTS WITH COLLODION DRESSINGS.

BY W. C. HUNTINGTON, M. D., HOWELL, MICHIGAN.

Last winter my brother cut his foot with an ax. I closed the wound with horse-hair sutures but he fell down and tore out the stitches, whereupon my father laid a piece of cotton cloth upon the skin on each side of the wound, poured collodion upon the cloth and, when it had firmly adhered, sewed the edges together across the wound, thus closing it and keeping it nicely together until it healed.

Last July W. D., aged fourteen, had his hand upon the muzzle of a shot gun when it accidentally discharged. I was obliged to amputate the ulnar half of the hand including the unciform, cuneiform and pisiform bones. I had flap enough to cover the metacapal in good shape and this part of the wound healed very nicely, but the destruction of tissue at the wrist was so great that my flap at this point was scant and I was not in the least surprised, to see my stitches cut out and the wound gap widely, exposing the end of the ulna, the joint, and semilunar bone. After trying in vain to close the wound and keep it closed with adhesive plaster, I applied a double thickness of cotton cloth with the folded edge corresponding to the edge of the wound, the cloth reaching back one inch in width, on each side, and then poured collodion upon the cloth and after it had thoroughly set I stitched the cloth together and thus closed the wound, but the traction around the wrist had by the next day caused swelling of the hand; the stitches were cut and replaced by longer threads which were tied in bow-knots; these were drawn a little tighter each day until the wound was gradually closed. It healed nicely, and now the boy has a mobile wrist and throughly useful hand. The wound discharged profusely until it was entirely closed, and water was freely used in cleansing the wound every day and in washing the dressings thoroughly, yet the pieces of cloth did not yield in the least.

On the 18th of this month (October) Mr. C. F., aged about fifty-five, was thrown from a carriage upon his head, cutting a gash two and a half inches long over the forehead and exposing the bone throughout its length; another upon the superciliary ridge causing one flap to drop upon the eyelid; and a third in the furrow from the ala nasi to near the corner of the mouth. I dressed all of these wounds with cloth and collodion, attaching the cloth upon one side, and after the collodion had set drawing the wound together and fastening with collodion on the other side. These wounds healed promptly, smoothly, and with very narrow scars.

The above results were so gratifying that a few experiments were made relative to developing the capabilities of collodion and fiber for dressings for wounds and for extension. It was found that cheese-cloth with the collodion containing two per cent. of glycerine dried quickly, is very flexible, and adheres firmly, but would not be strong enough for extension. One end of a strip of muslin two inches wide was attached for three-fourths of an inch across the back of my wrist and, passing the strip lengthwise around my hand the other end was attached to a like extent to the front of my wrist, and ten minutes after I tested it with spring scales, drawing them out to their full length (over twenty-four pounds) without detaching the cloth. Heavy cotton flannel was tested in the same manner: it absorbs a large quantity; will not adhere until thoroughly saturated; dries slowly, and is very stiff and hard when dry; but adheres very firmly. I took a few inches of wrapping twine and untwisting the ends for about two inches laid them near together upon the back of my hand forming a loop, poured on collodion, and when dry tested with scales, and it required a traction of fourteen pounds to detach it. Threads of sadler's silk were next used: one end of each was untwisted for about three-fourths of an inch and stuck to the back of my hand in pairs as though to tie across a wound in place of sutures, and although they were placed an inch apart they were repeatedly drawn together, and no thread yielded until they were removed easily by stripping them off in the opposite direction. Of course all traction must be nearly in a direct line with the plane of attachment. One end of a piece of coarse hardware twine was untwisted for three inches and the fibres spread out in fan-shape, and attached to by wrist; and a vigorous pulling match with a brother physician failed to detach it. The coarse cord used in tying express packages was frayed at the ends as finely as possible for three inches, spread in fan-shape upon each side of my wrist, and made them fast with collodion, and was my intention to suspend myself for a short time, but upon applying my weight the cord broke between the twisted and adhering portions. This taught the lesson that I should first have simply divided the cord into its strands, and then a little farther on these subdivided, and so on until at the ends they should have been finely frayed, then it would not have broken.

Now the practical bearing of these experiments is obvious, but there is one difficulty in the fact that the dressings will not adhere satisfactorily to a wet, greasy, or glutinous surface; but these conditions have no effect after adhesion has taken place; so that, if the edges of a wound cannot be kept dry the attachments must extend back to a dry surface; or, if this is not desirable, one side of the wound must be kept dry, allowing the blood to ooze upon the other side until adhesion has taken place and then reverse the process and it can thus be managed. For simple straight incised wounds where bleeding has stopped, a strip of cheese-cloth half an inch wide laid upon the wound lengthwise, collodion poured on and the wound held together until dry is all that is necessary; but with irregular and bleeding wounds the threads or cross strips as indicated above would be required.

Now, having given all of the experience that I have had with this subject, I would like to have others apply it in practice when opportunity offers, and report results whether favorable or the reverse.

CLINICAL LECTURES.

SYCOSIS.

BY HENRY J. REYNOLDS, M. D., CHICAGO, ILLINOIS,
Professor of Dermatology in the College of Physicians and Surgeons, Chicago, Illinois; Professor of Skin and Genito-Urinary Diseases in the Chicago Polyclinic; Dermatologist to the West Side Free Dispensary; Surgeon to the Genito-Urinary Department, West Side Free Dispensary, etc.

REPORTED EXPRESSLY FOR THE PHYSICIAN AND SURGEON BY SPECIAL CORRESPONDENT.

GENTLEMEN: It is no doubt already well known to many of you that we have a disease of the bearded region of the face commonly known as barber's itch, called also, more technically, parasitic sycosis or tinea sycosis. The disease, however, to which I shall call your attention to-day, though occurring in the same locality as barber's itch, having some of the same characteristics, and bearing a somewhat similar name, is nevertheless, it must be remembered, an entirely separate and distinct affection. The disease, then, to which we shall now confine our remarks is known as *sycosis*, sometimes, in contradistinction to the disease already referred to, more explicitly termed non-parasitic sycosis; barber's itch being a contagious or parasitic disease, while sycosis is a non-parasitic or non-contagious disease. In the ordinary, average, well-marked case of sycosis we usually see both cheeks about equally involved. We find distributed over the surface of the affected area, papules and pustules, each of which is penetrated by a hair, crusts, redness, sometimes small tubercles, and sometimes a certain amount of thinning of the hair. This redness is spread about the affected area diffusely, covering the entire surface that is involved usually. Though generally occurring upon the bearded portion of the face, we may find the disease on any portion of the body covered by coarse hairs, as the upper lip, scalp, eyebrows, axillæ and pubes.

The disease is generally met with in males, and almost always after the age of puberty. It generally begins with one or more discrete, elevated, inflamed papules, each of which is penetrated by a hair, or the papule is found located around the hair. The inflammation giving rise to the papular condition involves principally the hair-follicle and the perifollicular tissues. This redness is diffused, extending from one papule to the other. The disease is almost invariably symmetrically disposed over the affected regions; for instance, if we find it upon one cheek, we almost invariably notice a corresponding patch on the other cheek. Now, these papules very soon progress to the form of pustules, and new papules can be seen constantly forming, giving hence a variety of lesions. When several of these papules occur in a group we frequently have an enlargement, or lesion to which we may apply the name "tubercle," though this tubercular character is more characteristic of the parasitic form of disease or barber's itch than it is of non-parasitic sycosis,—in fact, these so called tubercles are scarcely large enough to be called tubercles. Now, in this, as in any other portion of the integument, where we have an inflammatory condition, especially if the inflammation is of a diffuse character, we have a certain amount of infiltration and thickening of the tissues. When the hairs of the involved surfaces are long, the pus that is formed by these pustules, and other inflammatory products, are retained, and sooner or later dry down and form crusts or scales, so that when first seen the entire surface that is involved may be uniformly covered by a mass of crusting. Now, as this inflammation is seated mainly in the hair-follicles and perifollicular tissues, as a natural consequence, some of the follicles are destroyed by the inflammatory action, and as a result, we have a partial thinning of the hair. This latter characteristic, however, we do not find except in cases of long standing. The hairs are always firm in the follicles, excepting those around which we have a pustule, and they are usually loose and may be easily extracted, while the others cannot be extracted without considerable pain to the individual. They are never dry, brittle, nor broken off as we find them in certain other skin diseases, particularly the parasitic form of sycosis. As for the subjective sensation of the part, we have very little itching, as a rule. We have, however, a sensation of pricking, burning, or smarting, and sometimes a certain amount of pain. The disease naturally tends to chronicity, and may last for a great many years, even in spite of treatment. As a relic of the disease we frequently have some scarring of the part, and as previously stated, a certain amount of alopecia or thinning of the hairs.

Case.—The history of the case to which I desire to direct your attention is as follows: The gentleman (medical student) is twenty-four years of age; American born. The disease first broke out two years ago, and as is frequently the case, he traces its origin to the barber's shop. I do not know whether he thinks he *caught* it there or that it was the *irritation* of shaving that caused it. It is common, however, to make the error that the disease is of a contagious character and was caught in a barber's shop. He has not much itching in the part, but has a little burning and smarting sensation; sometimes pain. We find he was affected to a certain extent in this and adjacent localities by a scaly eruption previous to the breaking out of the sycosis, which was in all probability a form of eczema. He has been treated more or less in various ways ever since, and, as you see with little benefit. As he passes around I would like to call your attention to some of the characteristics I have referred to. Please note them. You see it occurs upon both cheeks, symmetrically distributed. You notice here and there some pustules and papules, and that the pustules and papules are penetrated each by a hair. You will see in certain locations an excessive amount of thickening which might be considered of a tubercular character. We learned from the history of the case that it occurred after puberty. You notice the skin is diffusely red between each of these lesions; there is no healthy spot of the skin anywhere within the involved area. On one side you may see some crusts, but as he has kept the hairs short by shaving most of the time, and kept the part under a certain amount of treatment, we do not find many crusts, but they would readily form if the part were let alone. We do not observe in this case much thinning of the hairs, as the disease has not existed long enough, but it is quite probable that some of the follicles have already been destroyed and the hairs may not be reproduced. I would like you to notice (which you can do without hurting him) that the hairs generally are not loose, but wherever you find a well marked pustule the hair may be easily removed from it, because the inflammatory action around the hair-bulb has loosened and destroyed the follicle to a certain extent. The hairs are not broken off, dry, nor brittle; I call your attention to this characteristic so as to distinguish it from the parasitic form of the disease. It is very evident from its having lasted two years in spite of all the treatment he has given it, that it is of a very chronic character.

Pathology.—The disease is essentially, either primarily or secondarily, an inflammation of the hair-follicle and perifollicular tissues, with a general hyperæmia of the parts involved between these inflamed follicles, with an infiltration and thickening, etc. The loose hairs are accounted for by the destruction of the follicles by the inflammation.

Etiology.—Now with regard to the causation of the disease. While it cannot be said that the irritation of the hairs produces the disease, they certainly have, at least, an aggravating effect upon it. The disease is sometimes preceded by eczema in the locality, and this eczema renders the hair follicles more susceptible to inflammation, especially if the subject have a strumous diathesis; and then shaving the part with a dull razor must naturally irritate the bottom of these follicles; have a traumatic action upon them, as it were. The parts then being in an irritated condition, naturally take on inflammation from the pulling upon these hairs with a dull razor, and it is quite probable that this has a great deal to do with causing the disease. We see frequently, in almost anybody, after shaving (particularly with a dull razor), a certain amount of irritation around the hairs, sometimes in the form of distinct papules. This naturally would very readily pass off in a healthy subject, but along after the age of puberty when these hairs have started to grow, there is an increased physiological activity of the parts surrounding the hair-follicles, which, when there is a little eczematous trouble at the same time, and the irritation of a dull razor, very readily becomes converted into a pathological activity or inflammation. It seems probable, therefore, that these causes act together to produce the disease, and that once established it is aggravated and prolonged by the irritation of the hairs. In the upper lip it is sometimes caused by a catarrhal discharge. The disease is neither parasitic nor contagious. Remember this.

Diagnosis.—Like most other diseases of the skin, when the case is a well marked or typical one, the diagnosis is easy. The location, the symmetrical distribution, the age of the patient, its chronic character, etc., are usually sufficient to base a diagnosis upon. However, as there are certain other diseases that have some of the same characteristics as this disease, it is well to note the differential diagnostic points. The diseases which most resemble sycosis are *eczema*, *acne*, *syphilis*, and *parasitic sycosis*, or the disease to which I have referred as barber's itch. I will first give you the differential diagnostic points between these two forms of sycosis.

In *parasitic sycosis* we have first a history of contagion, frequently well marked. We always find this characteristic preceding a well developed form of the disease. We have first the ordinary ringworm patch upon the face; the parasitic sycosis of course occurs in the bearded region, yet we find the ringworm patch preceding a fully developed case, which we have not had in this case. We also find the part almost entirely destitute of redness in the parasitic form; and we have large tubercles or lumps deeply-seated,—lumps sometimes as large as a cherry or hen's egg are very common. These tubercles or lumps do not project very much from the surface, but are deeply-seated. We have never had these characteristic lumps in this case as you can readily see. We do not have the symmetrical distribution in the parasitic sycosis; the hairs are always loosened; they are dry, brittle and broken off, all of which differ from the characteristics of sycosis.

Eczema.—In eczema we have first an intense itching, which you will recollect is not a characteristic of sycosis. We have a history of moisture in eczema, which we have to a certain extent in sycosis, but the moisture is almost exclusively pus, whereas in eczema we have a watery exudation or moisture. Eczema is never confined to the hairy portions of the face, but will invariably, if it occurs in the bearded region, be found on other portions of the face, as in the plate I now show you. You can see the general redness (and while the plate I show you is that of a child, the same will be true in an adult); it is never confined to a particular locality, nor is it so circumscribed as sycosis. Symmetry is not at all characteristic of eczema. By symmetrical distribution I mean the occurrence of these patches on both sides of the face equally. The papules and pustules are not perforated by hairs in eczema.

Acne.—This disease is likewise never confined entirely to the beared region. The plate I now show you represents a case of acne. It may occur upon any portion of the face, and always does in fact. We have at the same time the comedones in acne which we do not have in sycosis. We do not have that diffuse red character in acne as we do in sycosis; the papules are not perforated by a hair in acne; the subjective sensation is likewise different. We rarely have any subjective sensation in acne; while in sycosis we have a burning, pricking, smarting, and some pain; acne generally occurs in younger subjects, almost invariably commencing at the age of puberty, whereas sycosis rarely occurs before the age of twenty; and this characteristic again favors the origin of the disease as resulting from the irritation of shaving in some cases.

Syphilis.—In syphilitic subjects we always find the lesions upon other portions of the body; they are never confined to the bearded region. We, of course, have a syphilitic history; we have no pain as a subjective symptom in syphilitic lesions. The lesions are never stationary as those in sycosis, but rapidly advance to destruction of the tissues, ulceration, etc., and when we do find syphilitic papules occurring in the bearded region they are not necessarily penetrated by these hairs. This penetration of each papule by a hair is one of the striking characteristics of sycosis.

Treatment.—As the disease is mainly local and kept up largely by the irritation of the hairs in the hair-follicles, so the treatment to a great extent must be local in character, and as in all other diseases of the skin where we have a large amount of inflammatory action or irritation or an acute condition, the treatment must be of a soothing character. This statement may apply to any skin disease where we get much acute inflammatory action or irritation. The first indication, then, would be to get rid of this irritation. This is best accomplished either by shaving with a sharp razor or by removing the hairs entirely from the follicles with a forceps. Sometimes the shaving process is sufficient (together with the other measures which I will later refer to) to cure the disease, but the shaving must be done with a sharp razor. You understand that when a razor is passed over the face it draws upon these hairs, and many of them are situated or embedded in the pustules, and where you have a pustule you necessarily have an inflammatory condition at the bottom of the follicle, and naturally, if the razor is not sharp you aggravate that inflamed surface. In many cases, however, it will be advisable and preferable to remove the hairs completely. It is not well where there are no pustules or papules to remove the hairs, because the operation is a painful one, but wait until the papules or pustules are formed, then they may be more easily extracted. Usually, however, when the case is first seen we have a certain amount of crusting, and a great amount of irritation at the same time. Now, this crusting must be removed by the usual process and the irritation allayed to a certain extent before we proceed to a removal of the hairs and the more radical measures. The crusts may be removed by oiling the part frequently (as I stated a few days ago when speaking on the fubject of "Seborrhœa"), then washing with soap and water. You must give the part very little irritation by this washing process. While you are removing these crusts the part is irritated and sore, and it may be well in some cases to apply poultices instead of oiling the parts. Hot poultices, if there is much inflammatory action, are much preferable to oiling; they soften the crust just the same and reduce the irritation and inflammation. The poultices soften the parts so that the hairs can be more easily removed and the crusts likewise. I may state further with regard to these crusts, that if the part when first seen is covered by long hairs it is well to clip them with a scissors as short as possible, and then apply the oil or poultice, as the case may be.

Now, in this case, as we have no crusting, I think the best thing we can do is to cut the hairs a little shorter, though not to shave the part until the irritation is reduced by applications, then apply *diachylon ointment*. This had better be applied upon strips of linen, or make a plaster of it on a piece of linen and stick it on each side of the face, and change as often as is required. This will have a soothing effect and will soften the crusts, allay irritation, and so on. With this ointment we might mix an astringent or stimulating powder, if we deem it advisable. I would recomment in most cases that some *boracic acid* be mixed with the diachylon ointment, say two drachms to the ounce. In some cases we may have a great amount of irritation or inflammatory action, and in such cases we must put less irritating substances in the applications. I can lay down no rule, however, as to the strength of the applications which are to be used in these cases, as it must vary with the irritation of the part. I think in a week or so the irritation in this case will be allayed and the parts softened up by the diachylon ointment; the hairs then may be readily removed, or the part may be shaved more easily and with less pain. I think now, after the parts are shaved or the loose hairs extracted, we can do nothing better than to apply the same thing right along for a time, gradually increasing the astringent or stimulating effect of the ointment, by putting in more boracic acid or substituting *oxide of zinc*, or other similar substance, as the irritation of the parts subsides. Watch carefully for the formation of new pustules and papules and extract the hairs. This is a surer method than the process of shaving. *Sulphur* is highly recommended in this disease, as in acne, and may be combined with the ointment in the same manner as the boracic acid. The reason I mention this diachylon ointment is because it seals up the part and shuts off all irritation. The oiling process does not do this so well but leaves the parts exposed to the air. Lead and opium wash may be of benefit after the irritation is gotten rid of. A lotion I have found useful a little later in the disease, and which, by the way, makes a very elegant preparation, is as follows: boracic acid, one drachm; glycerine, two drachms; solution of carmine, (say) four drops; cologne water, sufficient to make four ounces. Please remember this as it is useful also for other conditions.

Now, as to constitutional treatment. We have a drug that is said to be useful in all cases where there is a tendency to the formation of pustules, etc.: it is the sulphide of calcium. It is sometimes well to give this internally, say half a grain, three times a day. Whatever irregularities of the system there may be will require to be corrected; for instance, if there be constipation, struma, or an anæmic condition, each will require its proper and individual treatment.

ORIGINAL TRANSLATIONS.

GERMAN LITERATURE.

SURGICAL CLINIC OF PROFESSOR BILLROTH, VIENNA.

TRANSLATED BY GEORGE GUNDLACH, ANN ARBOR, MICHIGAN.

ACTINOMYCOSIS.

Patient is twenty years old, a marqueur, and in this capacity traveled about much. Last spring he found himself in Bosnia for three months. He says the room in which he slept was situated directly over a horse stable. This was the only time during which he had much to do with stockmen. In December of the previous year he contracted a severe cold; two days after this he felt much pain in his abdomen and had frequent passages of watery stools. There was loss of appetite but no vomiting. In the hospital of the brothers of charity he was treated for a considerable time with ice poultices. The patient suffered continually with loss of appetite and considerable fever. The abdomen was painful and from the inferior part to some distance above the navel was distended and felt hard as a board to the touch. At the end of January improvement occurred and the patient was sent to Hütteldorf to the house for convalescents of the brothers of charity. On the 28th of February a fistula formed below the navel; from this passed one litre of thick, yellowish-green pus. Two weeks later another hardened swelling appeared in the inguinal region, which soon opened on the surface and discharged a thin pus which was later suspended in a cloudy serum. In the meantime the fistula below the navel closed except a small spot from which, however, there constantly flowed a clear serum; this serum is thick, pale and easily coagulable but shows something peculiar which is only noticed when the attention is purposely drawn to it, namely, a number of small yellowish grains. These small grains here have a special significance; through them a diagnosis is made having reference to the etiology of the process.

Anatomically considered, we can say that we have here to do with an abscess the cavity of which appears to be situated in the retroperitoneal cellular tissue. So far as we can ascertain, the process exists only in the soft parts. That the abscess proceeds from the pelvis and is therefore a bone affection there is no reason to believe; there is no pain in the bone, no swelling in the region of the pelvis. The second possibility that the process is connected with the bowel we must leave an open one; we have no proof to that effect; it is not however unthinkable. It may happen that in perityphilitis, the processus vermiformis having been long bound down to the parietal layer of the peritoneum, a very small perforation may occur, which being surrounded by indurations, no peritonitis may result. An abscess may now slowly form in the retroperitoneal cellular tissue, which by a roundabout course finally finds its way to the surface at the place where it has occurred in this case. As a therapeutical measure we soon come to the conclusion, since by other treatment no material progress was made, that it is practicable to lay open the skin over the sinus, find the passage leading to the deep cavity, inject tincture of iodine and lay in a fine drainage tube; perhaps after this has remained for some time, it may serve to remove the secretions. On account of its anatomical relations or in itself considered, this process is not a particularly rare one; such chronic suppuration in the retroperitoneal cellular tissue occurs occasionally.

This case is interesting on account of the etiology, on account of the peculiar cause which lies at the bottom of this suppuration. It is seen that the small, yellow grains which I have pointed out to you are vegetations of mould fungus, which, as is now fully established, are not an accidental occurrence in the pus, but are now looked upon as the cause of the whole process. We have here to do with a case of suppuration caused by a mould fungus distinguished by the name ray fungus (from aktinos, a ray) or actinomyces. It is a mould fungus which was formerly not known and at present is known only in this shape, which as has been ascertained is not pure, but one of those various abortive forms which are seen in low and high orders of plants and also often enough in man. Under the unfavorable conditions of life in the pus, where they do not belong, they take on other forms, do not develop beyond certain stages, but remain permanent in these immature states. The first description of this fungus was made about ten years ago by Professor Ponfick, of Breslau. Although his treatise in other respects is very excellent, the etiology and exhibition of the process became somewhat perplexing owing to the colossal enlargement in which the plant is represented in his illustrations; for a long time objects as represented in these illustrations were looked for and not found though others having a different appearance were noticed. It took considerable time to become convinced of the fact as we now are, that this fungus is one widely distributed in man and the cause of very many suppurative processes.

The occurrance of fungi on man, in man and in the tissues of the human body, is a fact which has been long recognized. Familiar is the earliest known mould fungus, that of favus which was discovered on the human body by Schönlein. Afterwards a long list of fungi belonging to the moulds was described. For a long time it was a question whether the fungus of favus had anything to do with the cause of this disease in man or whether it accidentally passed into the secretions of a skin disease and vegetated there. Very soon after the contageousness of this disease was noticed it was discovered that this mould fungus in the presence of moisture has the property of growing easily under the epidermis of man and that it really was the cause of a well defined form of skin disease. Then a number of similar small fungi were found, for example, in herpes tonsurans, in pityriasis versicolor, and by and by in many other diseases. In all these cases it is determined that these fungus vegetations are the cause of the disease. On the other hand, in secretions mould fungi have been found which it is equally well known are not the cause of the disease but only accidental occurrences. To this class for example belong the fungi found occasionally in the sputa of patients who have large cavities in the lungs or dilatations of the bronchia, and the fungus found occasionally in otorrhœa; these are accidental elements and not causes of the disease. As now, the investigation of bacteria and cocci was being prosecuted, much less attention was paid to this mould fungus vegetation; that it was of any etiological moment in suppuration of tissues was hardly suspected, as they were acrobes and required a certain amount of oxygen for their sustenance.

It was anticipated that the mould fungus could not grow in tissues which were free from oxygen, and that the oxygen which was taken up by the animal tissues did not suffice to make the vegetation of the mould fungus possible. Now came the labors of Professor Grohe, of Greifswald, who wrote that he introduced the mould *pennicilium glancum* into the trachea of the rabbit; that it was taken up by the bronchia and passed from them into other parts of the body where it increased in quantity. Strange to say, these experiments could not be verified by others; the attempts of all who tried to reproduce them were unsuccessful; it was a matter of great interest; I myself made repeated attempts to perform them but did not succeed. The fungus in the blood and tissue never multiplied. Later it was shown by Grawitz, who repeated the experiments of Grohe, that the mould fungus pennicilium must be cultivated for some time in an alkaline soil before it will grow in the alkaline fluids of the body. If the spores of this fungus are taken from acids or fluids undergoing acid fermentation or after they have grown on apples, lemons, etc., their propogation in the animal body will not succeed. If pennicilium, which is found everywhere from Chimborazo to the grotto of Adelsberg, is cultivated in a decomposing soil which is gradually changed from an acid to an alkaline reaction and remains for some time in this alkaline soil, it is found capable of growing in the animal body and its tissues, which was denied previous to the experiments of Grohe.

These experiments were performed by Grawitz and it is now known that this fungus does grow in the animal body. As yet no disease has been recognized as caused by pennicilium or mucor and it is not known whether they can produce any injury to the organism. On the other hand, the fungus *actinomyces* has been found in cavities of the body and is without a doubt a cause of suppuration. Actinomyces can always be distinguished from the other mould fungi.

That you may understand the nature of these fungi you must have a general knowledge of how they reproduce themselves. Generally the spore cell, in which we can distinguish nothing but a membrane with dry contents, begins to vegetate by swelling up; then a portion of the cell begins to protrude like a bud, grows longer and larger and carries with it a portion of the plasma; now partitions grow across the elongated bud and it is organized into numerous apartments; this is called a mycelium; it takes on an endless variety of forms; some are straight, growing only in one direction; others, budding again, are composed of stems, twigs, etc., and in this way become highly complicated structures. This mycelium is however not as yet able to multiply, to produce a new individual, but spores, the peculiar blossoms and fruits of these plants and which are capable of growing independently, must be developed in the plant. Herein this mould fungus differs materially from bacterium and coccus. In bacteria every piece of the organism which breaks off is capable of growing on to a perfect new organism as long as enough moisture is present; if a piece of bacterium dries up it will no longer grow. There are formed however under certain conditions dry spores which are capable of growing after drying. In the mould fungus the different parts are not capable of reproducing the plant, but for this purpose the so-called organs of fructification are necessary, that is, on one of the before-mentioned buds a knob is produced; on this knob a large number of cells form. The green which one sees on pennicilium glancum is composed of such cells of a grayish green color and these cells are the so-called organs of fructification, that is, the seed, or spores. These spores by means of which is brought about the wide distribution of pennicilium glancum, are present in the air in great quantities; they may dry up, lie in a place a few thousand years and, when they receive moisture, grow again.

Another way in which these spores are formed is that in which variously colored spores are developed in the interior of the knob before mentioned; the knob bursts and the spores are scattered as we see in mucor and aspergillus. There occurs, furthermore, a class of these mould fungi in which no spores are formed unless an act of fecundation has preceded. The male and female form cannot be distinguished. Copulation in algæ and fungi takes place in this manner: the knob-like elongated buds from opposite sides of the cell approach each other, the knobs press together, the cell walls unite and both are impregnated. In many cases the mode of impregnation is known and the variety of methods is very great. If now we examine the spores of actinomyces under the microscope (Hartnack 8) we see a mass of knobs; when first observed they appear like a kind of organs of fructification; this is by no means the case; if they are analyzed under a higher power of the microscope, they are seen arranged concentrically, so that the whole appears star-shaped. To these knobs which fall off Ponfick drew special attention; the illustrations of them in his treatise are however not correct; those which have been prepared for Dr. V. Hacker and which I here exhibit are true to nature. So these knobs appear under the microscope; they appear like mycelium surmounted by knobs upon which spores are formed, or they may be mistaken for spores themselves; but the proper organ of fructification has not yet been discovered. It has not yet been finally worked out how this fungus originates, how it grows, what kind of an organ of fructification it really has or in which category it belongs. In most recent times it is believed that we have mistaken the significance of this knob altogether, that it is a sort of stunted growth, a degeneration, the remnant of a mycelium which has ceased growing because the material was not of the proper kind to enable it to attain a perfect development.

Since attention was directed to the fungus actinomyces, discoveries have constantly grown in numbers. Looked upon at first as a sort of curiosity, we know to-day that it is quite widely distributed, that it is met with quite frequently in the domestic animals as well as in man. We know that a large number of abscesses which we formerly could not explain are caused by this fungus. This mould fungus produces about the same effect in the tissues as the fungus of favus. Necrosis and suppuration do not always exist; the reaction which this mould fungus, growing inward between the fibres of the tissues produces, resembles that of the fungus of the favus; at first slight induration, increase of epithelium occurs, then gradually the tissue takes on a granulation character, crusts form on the surface, the hair follicles are destroyed, till the group of favus is removed and healing results. In this manner, also, actinomyces behaves. Rarely is there acute suppuration from the beginning; there is generally a slow, chronic spreading of the process, indurated thickening, cellular infiltration, vascularization with formation of a kind of granulation tissue, then slowly and after a considerable period of time the process leads to suppuration which takes place principally around small spots. A group of about sixty roundish bodies lie together; around this after the tissues have been for some time infiltrated and indurated, suppuration takes place. While suppuration is going on it may happen that the new formed and indurated tissue breaks down. If this process takes place in the bone or periosteum the same results follow as from other irritations of the bone of like nature, namely, a throwing out of osteophytes, and also only in the later stages granulation and suppuration. The growths of osteophytes present something characteristic. A dry preparation of bone affected in this way is easily distinguished from one affected with tuberculosis; you see here a preparation of caries of the ribs; you see how carious the vertebræ and ribs are; how a portion of their substance has disappeared; they look as if gnawed by mice; you notice there are few osteophytes. If now you compare with this a preparation of actinomycosis you will see that nothing has happened to the structure proper of the latter bones; the ribs are quite normal; only osteophytes are deposited around them. Now imagine the spaces between these osteophytes filled with indurated tissue, a sort of granulation tissue, and the osteophytes surrounding the actinomyces fungus just as osteophytes do form around foreign bodies. If we look closely at the ribs, we see that they are not affected; we cannot say that any part of their substance is gone; we only find deposits around them. It does not appear that the mould fungus has the power to disintegrate osseous tissues; it excites to granulation, to new formation of bone; the granulations may then partially destroy the bone.

Here again I show you a preparation of kidney affected with actinomycosis. In one end of the organ you see cavities in the tissues; these cavities contain actinomyces; the tissue of the kidney is somewhat indurated. In the lungs the condition is the same; these are forms which were first described; they are most frequently met with and best known. Since attention was directed to this subject it has been observed that actinomyces fungus also vegetates in mucous membranes, certainly in the bronchial mucous membrane, but especially in the mucous membrane of the intestines.

It is now a question whether the intestinal mucous membrane is not the proper portal for the entrance of this fungus into the system.

The question naturally is asked, How does the fungus get into man, and whence comes it? On this subject we now know the following: Veterinary surgeons have long know the disease among cattle, especially cows. A large deposit around the jaw bone, with partial necrosis, is especially formed; the teeth fall out; cavities are formed in which large numbers of the fungus collect. In most recent times the disease has also been noticed among swine and horses, but especially among cows, as I have just stated. From where do these animals get this fungus? Probably they get it while feeding. Whether it is present in the fresh food, in the hay, or whether it grows on the trees in the vicinity of the meadows, is not known at present. It takes a long time to find out such things. For a considerable period of time nothing was known of the nature of the potato disease—we did not know how to get at it; at last it was discovered that the fungus which generates this disease of the potato grows on barberry bushes, and only after all barberry bushes were removed from the vicinity of potato fields did the disease cease. It remains to be discovered whence comes the fungus actinomyces affecting cattle; perhaps we receive it from the latter. It is also possible that we take it in with vegetables or from some other source.

This fungus does not belong to the most dangerous; it is far from being as dangerous as bacteria because it does not generate such an intense poison as the latter. It is, however, of considerable consequence. The number of cases of actinomycosis observed is already very large. I have repeatedly opened abscesses of the tongue. the cause of which I could not explain. I was often of the opinion that it was a suppurated cysticercus, but could not discover anything to substantiate my opinion. I now think that most of these abscesses of the tongue depend on actinomycosis. Certain forms of bronchial and intestinal catarrh also play an important role in actinomycosis. The fungus may become lodged on the surface of the mucous membrane and finally pass into the internal organs.

To resume this whole subject we can say: Actinomyces is at all events a fungus belonging to the class of mould fungi; up to the present time its proper organs of fructification have not been discovered. It is probable that the forms which we see and which vegetate in animals are degenerated or arrested growths. We know nothing of its development or of its proper botanical classification. Man probably receives it from the domestic animals. Perhaps it can vegetate only on the surface of mucous membranes, but it can penetrate the tissues and then shows signs of irritation, a sort of formative irritation. This irritation, which finally ceases, leads to new formations, to indurated thickening, and on the surface of bones, to formation of osteophytes. In the course of time suppuration is added and an abscess forms, which by its wide spreading, may become dangerous. An acute form with extensive invasion and perhaps blood poisoning, as may be decidedly the case with the tubercle bacillus, has not been noticed in connection with this mould fungus.—*Allgemeine Wiener Medizinische Zeitung*, Numbers XXVI and XXVII, 1886.

HOSPITAL REPORTS.

MICHIGAN STATE HOSPITAL.

SURGICAL CASES.

SERVICE OF DONALD MACLEAN, M. D.,
Professor of Surgery and Clinical Surgery in the University of Michigan.
REPORTED BY WILMOT F. MILLER, CLINICAL CLERK.

DOUBLE HYDROCELE.

John P. M., aged sixty-two. Entered hospital May 29, 1886.

History.—Two years ago he noticed some enlargement of the left side of scrotum. This has gone on increasing till the present. There is now some enlargement also of the right side.

June 3: Diagnosis—Hydrocele. The tumors are beautiful illustrations of the "candle test." The left tumor was emptied with trocar and canula, and two drachms of strong tincture of iodine were injected; and the scrotum violently shaken.

June 7: The right side was treated in the same way. The patient complained of pain caused by the tincture.

June 29: Went home cured.

Remarks.—From the age and feeble condition of the patient, it was considered expedient to avoid any possible danger from the iodine and subsequent inflammation that might result from treating both cysts at the same operation.

NECROSIS AND REMOVAL OF NASAL BONES.

James McG. Entered hospital February 11, 1886.

History.—Was struck with a stone fifteen years ago and had his nose broken. The nose was set immediately and was straight for a time; but the bridge soon began to sink, until it is now on a level with his face. There has been quite a free discharge from the nose of an exceedingly offensive character. Several pieces of bone have been removed at various times. One year ago a large piece was removed. He can feel loose bone now in the nasal cavity. Nothing but the flattening is seen externally.

Clinic: With catch forceps Professor Maclean removed ten small pieces of bone and a large one three-fourths of an inch long from the left nostril.

February 15: Three more pieces removed from right nostril.

March 7: Discharge disappeared; parts healed. Dismissed.

EXSECTION OF INFRA-ORBITAL NERVE.

John N., aged sixty. Admitted May 27, 1886.

History.—The patient has suffered with facial neuralgia for some years. The seat of the most intense pain is in the right infra-orbital region. Last fall his physician performed neurotomy of the infra-orbital nerve; but in a short time the pain returned as severe as ever.

Clinic: Patient placed under the influence of chloroform and about one-half inch of the trunk of the nerve was cut away. The inflammatory deposit, and scar tissue of the former operation, made it difficult to find the nerve.

May 29: The stitches were removed. Patient suffers some pain, but not like the old neuralgia.

June 3: Pain all disappeared. The wound did not heal throughout by first intention, so that part of the wound must close by granulation. Dismissed.

Remarks.—This patient was brought to the hospital by Mr. J. W., who was operated upon, in the clinic, five years ago by Dr. Maclean for the same affection, with most perfect results.

GENERAL CORRESPONDENCE.

PARIS LETTER.

THE NATURE AND TREATMENT OF TETANUS—TREPHINING IN CASES OF CEREBRAL ACCIDENTS—THE PATHOGENY AND TREATMENT OF BRIGHT'S DISEASE—INTERESTING CASE OF OVARITIS.

At the French Congress of Surgery M. Vaslin made the following communication on the nature and treatment of tetanus. He lately treated the case of a child of eleven who had broken his leg in a fall, while at the same time he had received a wound on the thigh from the rubbing of a rope. The fracture was reduced and maintained. The lower part of the leg was amputated at the articulation of the knee. The condition of the patient was most satisfactory when a lively discussion suddenly took place; the day following tetanus appeared. There was no pain in the stump, the spasms started directly from the nape. A cure was effeeted by the twenty-ninth day. Finding no reasonable explanation for the appearance of tetanus, M. Vaslin concluded that nervous irritation arising from a moral cause was so intense as to cause tetanus. According to his opinion there is a neurotic form of tetanus, if indeed tetanus be not altogether a nervous disorder. He adopted this theory in the treatment of his patient, secluded the child in darkness, and prescribed chloral and morphine. The following year the same child received a severe wound in the right hand, but was easily cured without any threatening of tetanus. M. Balestiery (of Genoa) supported M. Vaslin's theory. Dr. Thiriar (Brussels) stated that he believed tetanus to be of a contagious nature. In four cases where operations had been followed by tetanus, which proved fatal, no pathogenic cause could be found. But the period of incubation almost identical in each case (from five to six days), would coincide with the theory of its contagious nature. This opinion was further confirmed by the existence of an epidemic of tetanus which had raged for the last two years in the environs of Waterloo and Nivelle. Dr. Maunoury (of Chartres) maintained a contrary opinion, although in several of the cases he mentioned, tetanus had appeared from six to nine days after the wound was inflicted, which coincides with the period of incubation given by M. Thiriar. He stated that several doctors and veterinary surgeons in practice at Chartres had observed numerous cases of tetanus independent of each other. M. Verneuil supported the hypothesis advanced by M. Larger that tetanus is infectious, and is originally transmitted to human beings from horses, in the same way as hydrophobia from dogs, trichinosis from pigs, charbon from cattle, vaccin from cows, diphtheria probably from gallinæ. Horses transmit glanders to human beings: it is probable that tetanus may also be transmitted. M. Verneuil characterizes tetanus as a specific disease of infectious character. He has collected proofs showing that it is infectious in horses. M. Larger's paper read before the Paris Surgical Society, likewise, facts stated by M. Ceremoni, veterinary surgeon at Noïsy-le-sec, furnish conclusive proof of the infectious nature of tetanus in horses; if this be true for horses it must also be admitted for human beings. It has been urged that human beings have never transmitted hydrophobia to dogs nor charbon to cattle, but it is possible that human beings may contract tetanus from animals and yet not transmit it to them. M. Doyen (Rheims) declared himself a strong partisan of the microbian theory of tetanus. In necropsies the nerves terminating in the wound were found to be congested. These nerves placed in tubes of cultivation fluid remained sterile but artificial cultivations of the fleshy buds of the wound, and of the nerve centres (medulla oblongata) revealed the presence of a large number of staphylococci. Microbes were not found in the nerves, doubtless because they had slipped along the sheaths in order to reach the nerve centres, according to a process well known in microbiology. Dr. Blanc (Bombay) stated his belief in M. Verneuil's theory concerning the equine origin of tetanus. In the part of India where he practices cases of tetanus are as frequent in horses as in human beings. There was no distinction to be established between medical and surgical tetanus as far as the gravity was concerned. Water served as a vehicle of propagation in tetanus as well as in cholera. Tetanus often occurred independently of any wound or the slightest solution of continuity offering ingress to germs. M. Vaslin recommended the treatment prescribed by M. Verneuil: isolation, darkness, chloral and morphine. M. Balestiery recommended antimony administered in doses of five, ten, twenty, thirty and even forty centigrammes. Of seventeen cases at the Genoa hospital treated with chloral only eleven recovered, and of three cases treated with antimony all three were cured. M. Borier (Montauban) declared himself a partisan of M. Verneuil's treatment. Dr. Blanc stated that he would recommend careful dieting rather than a medical treatment; milk, tonics, laxatives if there was constipation, a light diet and other precautions suited to the particular indications. He remarked that the Hindoo doctors pay great attention to constipation and employ purgatives in all cases of tetanus. In conclusion M. Verneuil strongly advised that what had been done in the case of hydrophobia should be repeated, namely, that doctors should study tetanus in animals while veterinary surgeons should study it in human beings. M. Balestiery then announced that he wished to place the sum of one thousand francs as a reward for the best work on the treatment of tetanus, at the disposal of the counsel of administration of the French Congress of Surgery.

At the same meeting M. Vaslin (Angers), speaking of trephining in cases of cerebral accidents consequent on traumatic lesions of the cranium, mentioned instances in which trephining cured paralysis, epileptic attacks, contractures, etc., resulting from traumatic lesion.

A paper by Professor Semmola, of Naples, on the pathogeny and treatment of Bright's disease was read at a recent meeting of the Academie des Sciences. It contained a description of his researches on the dyscrasic or hæmatogenic origin of Bright's disease. According to this author the pathological diffusibility of albuminoids ensures their elimination from the human organism. There is no difference in the elementary constituents of albuminoids fit for assimilation and albuminoids which are unfit for assimilation. Albuminuria appears at the same time as albuminocholiæ. Whenever albuminoids become capable of dialysis they are eliminated by the liver as well as the kidneys. In such cases albuminuria is unaccompanied by histological alteration either of the epithelium of the tubuli or of the glomeruli. Before making an injection of serum the proportion of its dialytic albuminoids should be ascertained, and it is then known whether albuminuria will result from the injection. Professor Semmola describes Bright's disease as a morbid condition caused by the slow effects of cold and damp on the skin; the faulty action of the skin eventually reaches complete suppression of its functions; this is due to the progressive ischæmia of the Malphigian layer and proliferation of the connective tissue of the derma. This disease presents a chemico-molecular change of albuminoids due to the nature of food absorbed. The pathological feature of this change in the albuminoids is their diffusibility and consequently being unfit for assimilation which obliges their elimination by the emunctories, especially the kidneys, the combustion of the albuminoids becomes gradually less and less, which is indicated by a decrease in the quantity of urea. The chemical symptoms are subcutaneous serous effusions; at the onset it is facial, and afterwards invades other regions; there is no relation between this effusion and hydræmia; cachexia is very pronounced; this is independent of the waste of albuminoids but results from serious faulty assimilation: both kidneys become inflammed; this inflammatory process is slow, the kidneys are ultimately attacked; microscopical examination reveals the histological characteristics of interstitial nephritis, of which the large, smooth, white kidney represents the typical lesion. Dr. Semmola terminated his paper by saying that in treating this disease favorable results cannot be obtained in a short time; the therapeutic measures he recommends are as follows: only food that is easily assimilated should be taken. Stimulate the action of the skin to facilitate the assimilation and combustion of albuminoids. Milk diet should be adopted for some length of time; a little meat or the yolk of an egg may sometimes be allowed, but should be given with great judgment. The patient should be rubbed. Scotch douche and vapor baths should be taken. Cold water treatment should not be attempted. It is very important that the patient should live in a dry and even temperature. Progressive doses of iodide and chloride of sodium should be administered every twenty-four hours. At the end of two or three weeks when albumen will not have entirely disappeared from the urine, and anasarca has disappeared, either phosphate of sodium or hypophosphate of soda or lime may be substituted for iodide of sodium, and be given in doses of from three to four grammes in twenty-four hours; phosphorus compounds are favorable to the assimilation of albuminoids. Inhalations of oxygen should be regularly administered; they cause albumen, sometimes in a few days, to disappear from urine, but morphological elements continue to appear for some length of time. And this fact demonstrates the hæmatogenie or dyscrasic origin of Bright's disease. Astringents should never be used in treating this complaint.

Dr. Pozzi has treated an interesting case of chronic ovaritis in his ward at the Lourcine hospital. A woman, aged twenty-nine, in whom no traces of scrofula nor syphilis were found; married at twenty; regular menstruation; no symptoms whatever of hysteria or neurosis. She was twenty when she had her first child, twenty-five when she had the second; the period of pregnancy and delivery were both painful. From that time she suffered increasing pains in the abdomen, with no apparent acute inflammation, but the abdomen remained inflated and coitus was followed by severe pain. M. Pozzi diagnosed a chronic periovaritis, the result of a limited post-puerperal pelviperitonitis. The patient was kept quiet during three months, with prolonged baths every second day, and poultices on the abdomen, but no improvement ensued. M. Pozzi then proposed castration, which operation was performed on the 20th of November, 1886. An incision was made of twelve centimetres starting from two centimetres below the umbilicus. Slight subcutaneous hæmorrhage ensued. After the incision of the peritonæum, four threads were passed across the flaps of the wound, at the top, the end, and on either side, in order to allow of the stretching and opening of the aperture in the abdominal wall, and also to prevent the separation during manipulation of the different parts which form the abdominal walls. The intestines were pushed up by the aid of large sponges. On introducing the hand the ovary was found to be in direct retroversion, while the uterus was in anteversion. There was considerable adhesion due to former inflammation which was removed with the nail, and the broad ligament was seized with a pair of forceps immediately below the ovary in order to draw it more easily outside. The size of this organ was slightly increased and enclosed three small sanguineous cysts about the size of a pea. The pedicle was ligated with three ligatures. The left ovary was also maintained in retroversion; although it had contracted adhesions like the other, it was nevertheless more easily detached and removed in the same manner. It presented no apparent alteration. The pedicle was ligated with two ligatures. The omentum was spread out before the intestines, and the wound closed by five deep sutures. One of these perforated a branch of the epigastric, which bled copiously. A dressing of iodoform gauze was applied. The histological examination of the ovaries revealed no alteration beyond the presence of the small cysts already mentioned. In short, the principal lesion was represented by the adhesions which enclosed the ovaries and maintained them in an abnormal position. There was rather peri-ovaritis than ovaritis so-called. The result of the operation was very simple. There was only a small thrombus in the abdominal wall, which caused slight suppuration. Since the operation the state of congestion with tendency to sleepiness has regularly appeared at the menstrual period, but without very noticeable pain, and without any discharge whatever. No tendency to eventration. An abdominal belt is worn as a wise precaution, and the patient enjoys good health. V.

HEALTH IN MICHIGAN DURING OCTOBER.

Reports to the State Board of Health, Lansing, by regular observers in different parts of the State, show the diseases which caused most sickness in Michigan during the month of October (four weeks ending October 30), 1886, as follows, the diseases being arranged in the order of their greatest area of prevalence:

Neuralgia, rheumatism, intermittent fever, diarrhœa, consumption of lungs, bronchitis, tonsilitis, remittent fever, influenza, dysentery, cholera infantum, whooping-cough, erysipelas, diphtheria, typho-malarial fever, inflammation of bowels, typhoid fever (enteric), inflammation of kidney, cholera morbus, scarlet fever, pneumonia, membranous croup, puerperal fever, measles, inflammation of brain, cerebro-spinal meningitis, and small-pox.

For the month of October, 1886, compared with the preceding month, the reports indicate that diphtheria, bronchitis, and scarlet fever increased, and that diarrhœa, dysentery, cholera morbus, and cholera infantum decreased in prevalence.

Compared with the preceding month, the temperature in the month of October, 1886, was considerably lower, the absolute and the relative humidity and the day and night ozone were less.

Compared with the average for the month of October in the eight years 1879 to 1886, cholera infantum was more prevalent, and intermittent fever, remittent fever, typho-malarial fever, pneumonia, consumption of lungs, and bronchitis were less prevalent in October, 1886.

For the month of October, 1886, compared with the average of corresponding months for the eight years 1879 to 1886, the temperature was about the same, the absolute humidity was slightly lower, the relative humidity was the same, and the day and the night ozone were more.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of October, 1886, at sixty-three places, scarlet fever at thirty-eight places, typhoid fever at forty-three places, measles at six places, and small-pox at one place.

Reports from all sources show diphtheria reported at six places less, scarlet fever at eight places more, typhoid fever at seven places less, measles at five places less, and small-pox at two places less, in the month of October, 1886, than in the preceding month. HENRY B. BAKER, M. D., Secretary.

LANSING, November 4, 1886.

EDITORIAL PERISCOPE.

PARALYSIS DEPENDING UPON IDEA.

In a paper to the *Lancet*, Dr. Suckling reports a case of paralysis depending upon idea, being the fourth which has come under his observation during the last twelve months. It is such cases as these that illustrate the great influence of the mind over the body. With these cases the faith-healer and the prayer-cure succeed; and if no false statements were made, and no deception practiced by those who practice and advocate the system of so-called faith-cure or mind-cure, it would receive all the recognition and support from the medical profession due it.

In all four cases seen, an accident occasioning slight injury was the exciting cause in each. In one case there was complete anæsthesia of the hand; in another hemianalgesia with localized and severe headache. All four cases were rapidly cured. There is no malingering in these cases, but the patients are firmly convinced that they are suffering from paralysis. If the confidence of the patient is regained, an immediate recovery follows when he is told that he will be well immediately. Dr. Suckling calls attention, in making the diagnosis, to the importance of bearing in mind the two classes of people in whom functional nervous disorders are met with—the neurotic and the hysterical—the features of which have been pointed out by Dr. Allbutt. It is the neurotic that is apt to be affected by these paralyses depending upon idea, and it is these cases that are instantly cured when the diagnosis is correctly made. The hysterical patient is cured with difficulty, and frequently relapses; the neurotic do not relapse. The neurotic individual is vivacious, good-tempered, unselfish, intelligent, active and industrious, anxious to be cured, and grateful for recovery. The hysterical individual is listless, apathetic, lazy, selfish, with characteristic expression, not usually anxious to get well, or thankful for recovery.

The report of Dr. Suckling's fourth case is as follows:

Sarah F., a widow, aged forty-six, was sent to the Queen's Hospital to be admitted under my care, by Dr. Middleton, of Harborne, on the 15th of March last, and was discharged well on March 28. She has led a very industrious life, having supported her five children by needle-work since her husband's death ten years before. On October 9, 1885, she tumbled downstairs, falling down twenty-one steps on her back. She was much hurt and "dazed," and very much frightened, thinking every bone in her body was broken. She walked about after the accident, for a day or two, but suffered from pains in the back, down the legs, and around the body; these pains were intermittent, very severe, and lasted altogether three weeks. Two days after the accident she took to her bed, and a day or two later found that she was paralyzed in both her legs and had lost all feeling in them. Since the accident she had suffered from constant headache and backache. Upon examining her I found that she had a little power over the legs, but very little. Slight ankle-clonus could be elicited on the left side. The plantar and abdominal reflexes were lost, but the knee-jerk was well marked. There was complete analgesia and thermal anæsthesia in both legs up to the knees. She was unable to localize tactile sensations below the knees, the anæsthesia not being complete. When touched with a sharp-pointed instrument she said she felt as if she were being pushed. Muscular sense was unaffected. There was superficial tenderness over the lower dorsal spines, but no pain on firm pressure or on percussion, and no irregularity of the spine. The bladder and rectum were unaffected, and I was informed by Dr. Middleton that she never lost control over the bladder, nor had any sign of bedsore during her illness. There was no œdema of the legs, no alteration of temperature, and no change in the color or aspect of the skin or nails. In fact, there were absolutely no trophic changes whatever. The response of the muscles to faradization of their nerves was normal, but there was considerable electrical anæsthesia. In summing up the symptoms present, I of course observed their incongruity if we supposed the case to be one of myelitis, or, in fact, as due to any organic lesion. If the anæsthesia were due to actual lesion of the gray matter, how could the bladder and rectum escape? How was it that there was no sign of bedsore, no œdema, or other trophic change, such as muscular wasting? I diagnosed the case immediately as being purely functional, and, the woman being or the neurotic type, as paraplegia depending upon idea. I at once acted upon this diagnosis, and told the patient that I would give her the battery, which I said would at once remove the loss of sensation, and enable her to move her legs as well as she ever did. She was delighted to hear this, and after a minute's faradization sensation was completely restored, and she had full command over her legs. I then told her that on my next visit I should expect to see her walking about the ward, for I was sure that she would be able to do so. I instructed Mr. Whittendale, my house-physician, to see that she got up after I left, and to apply the faradic current whenever she displayed any hesitancy. On my next visit, two days later, I found her up and able to walk and run about the ward perfectly well. She was quite delighted at her recovery, and had been most industrious with her needle since getting up. She expressed deep gratitude, and hoped to be able to repay our kindness. I may add that I saw my patient on the 14th of the present month (September), and she was remaining well.

CONDENSATIONS.

Our Prospectus for the ninth volume, beginning January, 1887, will be found on advertising page 9. The readers of The Physician and Surgeon will see that every effort is being made on the part of the publisher to make it a journal of superior value. In thus faithfully discharging his obligations to his subscribers, he expects them to furnish him their cordial support in return. This is the month for sending out statements: those who are in arrears will receive a statement of the amount of their subscription due to the beginning of the year 1887. As a matter of business he will expect prompt and cheerful remittances.

Extirpation of the Bladder.—Dr. Neihaus, of Berne, extirpated the bladder, two years ago, in a boy of six years, on account of ectropia. The ureters were drawn forwards and fixed in the epispadic groove on the penis. The patient wears a convenient urinal. He was shown at a recent meeting of the Berne Medico-Pharmaceutical Society.

Treatment of Asphyxia of the New-Born.—Dr. Reynolds, of Boston, suggests a modification of the "gravitation method." The child lies on its back, head downwards, upon the forearm of the operator, who grasps it with his fingers hooked over the shoulders; the child's arms fall down when the hand is lowered, and, in this way, the weight of the arms and thorax expand the chest. If the thorax is now compressed against the operator's forearm, and suddenly relaxed, a satisfactory respiration occurs. This method has the further advantage of favoring the escape of mucus from the air passages.

Bad Effects from Cocaine.—Dr. Elder reports in the *Lancet* that preliminary to opening a superficial abscess, twelve minims of a freshly prepared ten per cent. solution was injected under the skin. Three or four minutes afterwards syncope supervened, followed by twitching of the face, falling of the jaw, coldness of the body, clammy perspiration, lividity of the face, —in fact, all the appearances of imminent death. The patient was several minutes in recovering consciousness and during the remainder of the day felt prostrate. Similar occurrences have been noted, which show that cocaine is not so innocuous as has been supposed.

Tonsilitis in Adolescents.—Dr. C. Haig-Brown publishes in his thesis (*Lancet*) much interesting matter upon a very common affection. In one hundred and twenty-seven consecutive cases of tonsilitis one hundred and five occurred in lads between the ages of fourteen and seventeen. He traces an undoubted association of some cases with the rheumatic diathesis, or more immediately as a precursor of an attack of acute rheumatism, as well as the humidity of the atmosphere as favoring tonsilitis, and the equally notorious influence of defective drainage. Dr. Haig-Brown is convinced of the contagiousness of tonsilitis, and sketches two epidemics that occurred in his practice, from the study of which he concludes that the contagium is most virulent at the commencement of the disease, at a stage when it is often overlooked. Amongst complications he discusses very fully the development of cardiac murmurs, which were met with in nine and four-tenths per cent. of cases when there was no previous history of rheumatism. In eight cases out of three hundred and forty-five the evidence was conclusive in favor of endocarditis for they terminated in chronic valvular disease, and in three there was distinct evidence of pericarditis. As to treatment, the opinion is expressed that, like acute pneumonia and many specific fevers, tonsilitis runs its course uninfluenced by drugs, and this applies not only to gualacum, aconite, and chlorate of potash but also to salicine and the salicylates, with the reservation that the latter may possibly in some cases avert an attack of rheumatic fever.

SIMPLE METHOD OF ARTIFICIAL RESPIRATION.—Mr. J. A. Franas describes, in the *British Medical Journal*, the following simple method of artificial respiration, which he claims combines all the advantages of the Hall, Sylvester, and Howard methods, without any of their disadvantages. The body of the patient is laid on the back, with clothes loosened, and the mouth and nose wiped; two persons pass their right hands under the body at the level of the waist, and grasp each other's hand, then raise the body until the tips of the fingers and the toes of the subject alone touch the ground, count fifteen rapidly; then lower the body flat to the ground and press the elbows hard to the sides, count fifteen again; then raise the body again for the same length of time; and so on alternately raising and lowering. The head, arms, and legs are to be allowed to dangle down freely when the body is raised.

INDIRECT INNERVATION OF THE SKIN.—M. Vanlair stated, in a recent meeting of the Academie des Sciences, that numerous instances had been observed to prove the theory of indirect innervation of the skin. In these instances sensibility remained after some of the principal nerves had been cut; and, in some instances, sensibility of the peripheral nerve-end remained intact, though totally severed from its central extremity. The hypotheses of Arloing and Tripier, based on scientific researches, that the phenomena of recurrence and of peripheral diffusion, explained the apparent parodox of the existence of sensibility in the peripheral nerve-end after section, have been accepted by all physiologists; but these investigators, believing in an intimate relation between these two phenomena, have neglected to define the part played by recurrence and by collateral diffusion of the fibres, and have likewise passed unnoticed that the return of sensibility after its preliminary suppression, occurred independently of nerve regeneration. M. Vanlair examined these two points experimentally and concluded that recurrence and collateral diffusion were two entirely independent phenomena. The latter was by far the more important, and alone assured cutaneous sensibility after severing the nerves. Exchange of nerve force among the peripheral nerves occurred among branches of the same nerve, and also among nerves belonging to the same plexus. The collateral fibres pass through the deep tissues of the limb, and issue from the surface of the aponeuroses to enter the skin separately. Suspension of sensibility did not result from paralysis of the peripheral end, but from an inhibitory action proceeding from the point of lesion. This influence was gradually exhausted, and sensibility gradually returns.

PUERPERAL SEPTICÆMIA.—In the general discussion of this subject at the Virginia Medical Society, Dr. Parvin defined the disease as "a febrile affection of women in childbed, which is contagious and heterogenetic." He believes the disease is dependent on germs, for the following reasons: The smallest particle of infected matter conveyed from one puerperal woman to the vagino-uterine tract of another woman in childbed gives the disease. The statement is assumed to be correct from what we know to be the effect of germicides in preventing the disease. Analogy also helps to this conclusion, as we know that many diseases are dependent upon the introduction of living germs into the system. He does not believe that a puerperal woman can have puerperal septicæmia without having a wounded womb. Retained membranes and clots do not cause the disease when they are kept aseptic. These decaying secundines simply furnish the suitable soil for the nourishment of the microbe. The poison itself always comes from without.

TUBERCULOSIS COMMUNICATED BY FOWLS.—Dr. G. de Lawallarie relates (*Gazette Medicale de Paris*), fully and convincingly, an important case, which occurred in a small hamlet with specially good hygienic surroundings. The points in the case are as follows: A young soldier died here of phthisis which he had contracted while on active service. His wife, who nursed him assiduously and never left the room in which her husband was, showed signs of phthisis soon after his death and the disease advanced rapidly. A neighbor who had little intercourse with her also developed signs of phthisis which the author was entirely at a loss to acccunt for at first, as she had previously been a strong, robust woman. He discovered that a number of fowls had died, and that they had been eaten by this woman in an undercooked state. He further noted that when the first female patient coughed, it was the signal for all the hens about to approach where she was, in anticipation of getting the sputa to peck. He made a postmortem examination on one of the fowls which had died soon after his attention had been drawn to the facts, and he found extensive tubercular changes in the intestines and other organs, the parts containing the bacillus tuberculosis. He insists upon this being a case in which infection was conveyed, (1) from man to man; (2) from man to animal; and, (3) from animal to man; and the case as recorded appears to be satisfactorily proved.

THE "MEDICAL NEWS" VISITING LIST.—This visiting list contains a number of desirable features, being revised and improved. Brief memoranda, which are generally useful, but particularly so in emergencies, are contained under the following heads of its contents: Obstetric diagrams; scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; list of disinfectants; table of eruptive fevers; lists of new remedies and remedies not generally used; incompatibles, poisons and antidotes; artificial respiration; table of doses, prepared to accord with the last revision of the United States pharmacopœa; an extended table of diseases and their remedies, and directions for ligation of arteries. It is handsomely bound in limp Morocco with tuck, pocket, pencil, ruler, erasible tablet, and catheter scale. The list of remedies not in general use have been brought up to date. It is now issued in various sizes to accommodate practices of thirty, sixty and ninety patients per week, and another edition is published without dates (perpetual).

NEW PUBLICATIONS.

FIELD AND LIMITATION OF THE OPERATIVE SURGERY OF THE HUMAN BRAIN. By John B. Roberts, A. M., M. D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic; Surgeon to Saint Mary's Hospital. 8mo: eighty pages. Cloth, $1.25. Philadelphia: P. Blakiston, Son & Company, 1885.

The opinions held by the author upon some of the debated points involved in cerebral surgery are expressed in the following propositions:

(1) The complexus of symptoms, called "compression of the brain," is due not so much to displacing pressure exerted on the brain substance as it is to some form or degree of intercranial inflammation.

(2) The conversion of a closed (simple) fracture of the cranium into an open (compound) fracture by incision of the scalp is, with the improved method of treating wounds, attended with very little increased risk to life.

(3) The removal of portions of the cranium by the trephine or other cutting instruments, is, if properly done, attended with but little more risk to life than amputation of a finger through the metacarpal bone.

(4) In the majority of cranial fractures the inner table is more extensively shattered and splintered than the outer table.

(5) Perforation of the cranium is to be adopted as an exploratory measure almost as often as it is demanded for therapeutic reason.

(6) Drainage is more essential in the wounds of the brain than in wounds of other structures.

(7) Many regions of the cerebral hemisphere of man may be incised and excised with comparative impunity.

(8) Accidental or operative injuries to the cerebral membrane, meningeal arteries or venous sinuses should be treated as are similar lesions of similar structures in other localities.

(9) The results of the study of cerebral localization are more necessary to the conscientious surgeon than to the necrologist.

These propositions are ably argued, but in some places we fear that logic and figures are strained to establish some of his conclusions.

The chapter on cerebral localization is a clear discussion of the subject and contains valuable tabulations on indications for trephining in traumatic cases; conditions which contra-indicate the operations; and the regions for opening the cranium when trephining is indicated.

The third chapter considers "Operative Treatment of Central Lesions," in which the principles set forth are applied to the treatment of cranial fractures; inter-cranial hæmorrhage; inter-cranial suppuration; epilepsy and insanity following cranial injury; and cerebral tumors.

The author writes enthusiastically but from the results of recently reported cases, he is not proportionately more progressive than others are conservative. Without question it will be but a short time until opening the cranial cavity for exploration and operation will be as warrantable as opening the peritoneal cavity for similar purposes.

INSOMNIA; AND OTHER DISORDERS OF SLEEP. By Henry M. Lyman, A. M., M. D., Professor of Physiology, and of Diseases of the Nervous System, in Rush Medical College; Professor of Theory and Practice of Medicine in the Woman's Medical College; and Physician to the Presbyterian Hospital of Chicago, Illinois. 12mo: two hundred and forty pages. Cloth. Chicago: W. T. Keener, 1885.

In this work sleep is considered from the stand-point of psychology, physiology and pathology. In the first chapter—The Nature and Cause of Sleep—the modification of the physiological features of the mind and body "which accompany and condition the phenomenon" of sleep are investigated. In answer to the question, Does the mind ever sleep? the author rebuts the arguments of Sir William Hamilton and others, adduced to prove the continued activity of the mind during the sleep of the brain, and states his reasons for believing that that spiritual force or congeries of force which constitutes the mind of man may, like a physical force, cease to exhibit itself in an active state, and pass into an analogous potential modification.

The chapters on Insomnia; Remedies for Insomnia; Treatment of Insomnia in Particular Diseases; Dreams; Somnambulism; Artificial Somnambulism, or Hypnotism, contain interesting information of such a character as to render the book desirable and valuable to both physician and layman.

MEDICAL DIGEST.

TREATMENT OF PNEUMONIA WITH INUNCTIONS OF MERCURIAL OINTMENT.

The treatment of pneumonia with mercurial ointment, proposed by Barthel and Moritz, of Saint Petersburg, in the *Saint Petersburger Medicinische Wochenschrift*, of January 16, 1886, is, as a typically antiphlogistic measure, of a pretty old date, for as early as 1850 the mercurial treatment was recommended by Wittich as a check, and in opposition to the practice of French physicians, to the employment of abstraction of blood.

Of course, the calomel which Wittich and his contemporaries prescribed, was not exhibited in the antiseptic sense as the mercury ordered at present by the above-named Russian physicians. But no matter whether the metal is supposed to reduce the excess of fibrin, diminish congestion of the lungs, and favor resorption of the inflammatory exudate, or whether we mean to kill by its action the specific etiological factors of the disease—Friendländer's pathogenetic microbes—the mercurial treatment of pneumonia is usually attended by good results. The success of iodoform and similar inunctions in a large number of peritonic and meningitic affections induced Barthel and Moritz, chiefs of the Obuchow Female Hospital of Saint Petersburg, to try the inunction of mercurial treatment in croupous pneumonia. That mercury, if applied in the form of an ointment for the skin, was absorbed, of course, is a well established fact, and has been known ever since Voit's memorable publication, "The Absorption of Mercury and its Combinations in the Body," Angsburg, 1857. For the last two years this has been the only medication used in croupous pneumonia, and it shows a favorable mortality rate, as compared with the records of former years. The mortality rate of thirty-one and four-tenths was lowered by the mercurial treatment to six and two-tenths per cent., certainly a remarkable difference. The inunctions are to be begun with at once when the diagnosis is established. Morning and night a drachm is to be used; in very grave cases three instead of two drachms may be used daily. The inunction is to be made on the extremities, abdomen, and back; the thorax is to be left exempt, as the skin in this locality is wanted intact for the water compress (the German routine treatment of respiratory affections *vide* Berlin letter of *Gazette*, January, 1886). There was used in one case two drachms of mercurial ointment, in three cases three drachms, in seven cases four drachms, in six cases five drachms, in one case six drachms, in one case seven drachms, in seven cases eight drachms, in three cases nine drachms, in one case ten drachms, in one case twelve drachms, in one case thirteeen drachms. In spite of directly ordered gargles of chlorate of potassium, the authors observed in some instances slight gingivitis and moderate salivation, though never a serious stomatitis or colitis. Alongside of these inunctions, the inevitable compress was applied on the thorax as intimated above, and digitalis and quinine given according to the indication of the case. In view of the very favorable record produced by this mercurial treatment, we can only support the recommendation by our Russian colleagues of mercury in croupous pnenumonia.

THERAPEUTIC PROGRESS.

Chloroform as a Hæmostatic.—Dr. Betz reports two cases of post-partum hæmorrhage which he checked, and secured contraction of the uterus, by plugging the vagina with a sponge or cotton soaked in chloroform.

Pilocarpine in the Treatment of Adenitis is recommended by Dourado. He reports a case of chronic enlargement of the cervical glands, in which two injections of salicylate of pilocarpine caused the swelling to disappear.

Naphthaline in Ulcers.—As a local application to ulcers, it is recommended on account of its cheapness and ease of application. It is said to induce rapid healing and cicatrization. Its antiseptic properties serve to correct offensive odors. Its application is absolutely painless and non-irritant, so that the patient may carry on his work.

Lantamine.—This alkaloid was discovered and extracted from a plant of the family of verbenas by M. Negrete. It slows the nutrition and lowers the temperature. It is tolerated by the most delicate stomachs. Intermittent fevers that prove refractory to quinine have yielded to the influence of two grammes of lantamine. In order to produce antipyretic effects in febrile conditions the dose employed is from one to two grammes in twenty-four hours, given in pills of ten centigrammes. In intermittent fever the drug is administered immediately after the paroxysm.

To Disguise the Bitterness of Quinine.—Equal parts of ammonium chloride and powdered extract of liquorice and quinine is recommended as very efficacious in disguising the taste of the latter. When it is desired to dissolve the powder in water it should be first moistened and made into a paste, which is readily soluble; but if too much water is added at first, the liquorice will float on top of the fluid.

Myrtol.—This new therapeutic agent is obtained by the distillation of myrtle leaves. It is volatile at ordinary temperature, and has a sharp acrid taste. It is claimed to be disinfectant and antiseptic. It is eliminated by the kidneys and lungs, and is regarded beneficial in chronic affections of the respiratory and urinary passages. The dose is two or three grains given in pill form four to six times a day.

Cocaine in the Hypodermic Treatment of Syphilis.—The addition of cocaine to the mercurial solution is stated to render the injections nearly or quite painless. The following solution is used for one injection:

℞.	Cocaine hydrochloride	¾ gr.
	Mercury dicyanide	15-100 grs.
	Distilled water	15 drops.

Tribromide of Allyl.—This compound, which has been known to chemists for years, has recently been found to be of value in medicine in the treatment of hysteria, infantile convulsions, angina and asthma. Dr. de Fleury administers it in five-minim doses, enclosed in capsules, from ten to twenty-minims taken by the mouth in the twenty-four hours; the drug may be injected under the skin in doses of from two to four drops dissolved in one or two cubic centimetres of ether.

Toxic Effect from Permanganate of Potassium.—A correspondent to the *Boston Medical and Surgical Journal* reports the administration of two-grain capsules of the permanganate of potassium for ammorrhœa in a young lady, the first dose of which caused severe burning pains from the throat to the pit of the stomach, nausea, and a rapid and weak pulse. The next morning she took the second capsule, with a repetition of the symptoms of the previous evening, only more severe. The patient was intensely nauseated, complained of intolerable burning in the stomach and throat; was almost puseless, completely prostrated; did not fully recover for two or three days.

Solaine.—In the *Bulletin de Therapeutique*, Dr. Geneuil publishes a study of the therapeutic action of solaine. He finds that in all cases where the element of pain is to be combated solaine is preferable to either morphine or atropine, since it possesses analgesic properties equal or superior to those drugs, and is free from the danger and inconveniences inherent in them. Physiologically, it acts upon the bulb, the spinal marrow and the nerve trunks, narcotising them and producing paralysis of the sensitive and motor nerves. It may be administered in light doses continously for indefinite periods, as it has no cumulative action, and therefore, if managed with prudence, is not at all dangerous. It does not seem to produce cerebral congestion in either the very aged or very young, and taken all together it seems to be a most valuable addition to therapeutics.

Ichthyol in Rheumatism.—In the Moscow Military Hospital Dr. Dubelir uses ichthyol in acute and chronic rheumatic cases with success. This substance is obtained from mineral oil, and is rich in sulphur. It is applied, after careful washing and drying of the affected part, either in the crude form or as a compound sulphate of ichthyol and soda or ammonia, and at the same time is given internally in the form of drops or pills, the dose being from fifteen to twenty-five drops of the sulphate of ichthyol and ammonia, or a similar quantity made up into from six to twelve pills. In all cases the pain is relieved, but the swelling not affected, so that the author thinks that the drug must only be used in the expectation of relieving pain. If the external applications are carried on for a long time, or without necessary precautions of washing, a pustular erruption is liable to occur.

Oleum Eucalyptus in Malarial Affections.—A series of experiments with this oil in the treatment of various forms of malarial fever are reported by Dr. Musser. He gives ten drops on a lump of sugar three or four times daily to adults, but states that three or five drops repeated oftener would be of more service. He says: "The oil of eucalyptus is of material value in malarial affections, and in cases where quinine is, on account of idiosyncrasy, inadmissible, the drug may be relied on in nearly one-third of all the cases of vague malarial intermittent affections." He concludes thus: "(1) That the oil of eucalyptus is of decided value in about thirty-three and one-third per cent. in all cases of intermitting malarial fever. (2) That it has no specific value in any one type of the disease. (3) That the longer the duration of the disease the less liable it is to do good. (4) That relapses are not prevented by it. (5) That its influence on the spleen has not been demonstrated. (6) That a dose of ten drops four times daily has been a sufficient dose, but that five drops every three hours would be possibly of greater value. (7) That good results are not attained as quickly as by large doses of quinine, but that a good effect should be observed within five days at least."

41C
8597